

Ad 495A  
2.063  
Copy 1

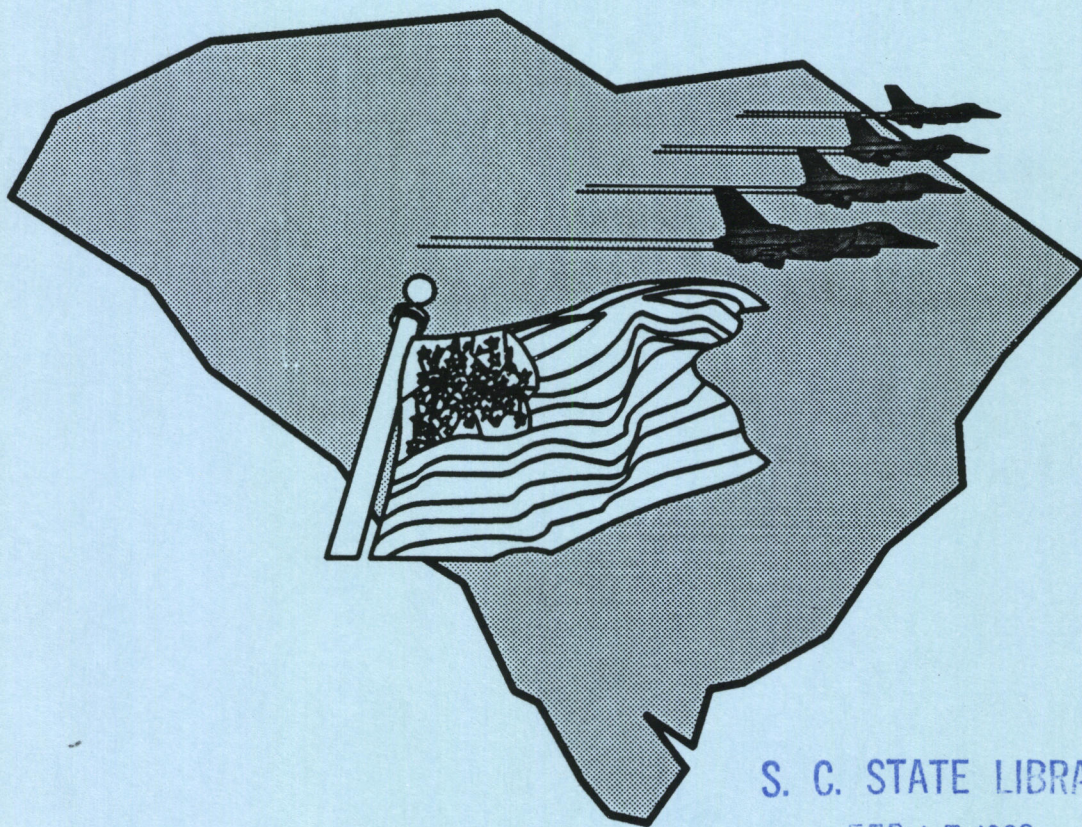
# **SOUTH CAROLINA AIR NATIONAL GUARD**

**169th Consolidated Aircraft Maintenance Squadron**

**Al Kharj Air Force Base**

**Saudi Arabia**

## **OPERATION DESERT STORM**



**S. C. STATE LIBRARY**

**FEB 13 1992**

**STATE DOCUMENTS**



S O U T H C A R O L I N A A I R N A T I O N A L G U A R D

169th Consolidated Aircraft Maintenance Squadron

Al Kharj Air Force Base, Saudi Arabia

O P E R A T I O N D E S E R T S T O R M

A HISTORY OF THE SQUADRON'S OPERATIONS

DURING THE PERSIAN GULF WAR

JANUARY TO MAY, 1991

BY

TSGT. CARROLL L. ALLEN

UNIT HISTORIAN



## TABLE OF CONTENTS

Chapter	Page
I. Operation Desert Shield.....	1
II. November 1990, Predeployment.....	2
III. December 1990, Predeployment.....	3
IV. January 1991, Predeployment.....	4
V. Operation Desert Storm, Combat Operations.....	6
VI. Administration Branch Summary.....	80
VII. Avionics Branch Maintenance Summary.....	81
VIII. Field Maintenance Branch Maintenance Summary.....	83
IX. Munitions Branch Maintenance Summary.....	85
X. Organizational Maintenance Branch Maintenance Summary.....	87
 <b>Appendices</b>	
A. CAM Maintenance Summary for Combat Operations.....	89
B. Basewide Maintenance Summary Statistics.....	90
C. Fourth Tactical Fighter Wing's Basewide Combat Statistics...	91
D. CAM Maintenance Statistics.....	92
E. CAM Maintenance Statistics for January and February, 1991...	93
F. CAM's Combat Statistical Chart, January, 1991.....	94
G. CAM's Combat Statistical Chart, February, 1991.....	95
H. Number of Munitions Expended by Type and Date.....	96
I. Summary of Munitions Loaded and Expended.....	97
J. Summary of Aircraft Phase Inspections.....	98
K. CAM Squadron's Organizational Listing.....	99
L. List of SCANG Pilots Assigned to Operation Desert Storm...	100
M. Family Ties.....	101
N. Number of Combat Missions Flown.....	107



**SOUTH CAROLINA AIR NATIONAL GUARD**  
**169th Consolidated Aircraft Maintenance Squadron (CAM)**  
**McEntire Air National Guard Base, Eastover, S. C. 29044**

**CHAPTER I**  
**OPERATION DESERT SHIELD ACTIVATION**

**Introduction**

The following is a chronicle of the South Carolina Air National Guard's deployment to Al Kharj Air Force Base, Saudi Arabia in support of Operation Desert Shield and Operation Desert Storm. Specifically, this narrative details the events surrounding the activation of the 169th Consolidated Aircraft Maintenance Squadron (CAM) prior to January, 1991 and its activity during the Persian Gulf War from January to March, 1991.

**Background**

On 2 August 1990, Iraq invaded its neighbor Kuwait, a small oil producing country located on the Persian Gulf. Within hours the country was occupied by Iraqi forces. This invasion eventually provoked an armed conflict between Iraq and a coalition of 28 nations who were acting to enforce 12 United Nations Resolutions condemning Iraq for its aggression. After Iraq failed to meet a United Nations deadline of 15 January 1991 to withdraw from Kuwait, coalition forces launched an attack to expel Iraq's army. When a cease fire was announced by President George W. Bush at eight a.m. (local time) on 28 February 1991, the Iraqi army was in full retreat after losing 41 of 42 divisions stationed in Kuwait and southern Iraq.

Coalition forces used a two phase plan to defeat the Iraqi forces. Beginning on 17 January 1991, an air campaign to bomb vital communication links, supply routes and war making capability was launched. After 38 days of air strikes, coalition ground forces launched an invasion which lasted 100 hours and succeeded in demolishing Iraq's military force. Coalition forces suffered minimal losses, Kuwait was liberated and Iraq's capability to wage war was destroyed.

The South Carolina Air National Guard's (SCANG) role in the Persian Gulf War began shortly after the Iraqi invasion of Kuwait. A NATO Tactical Evaluation had been scheduled to take place at Rygge Air Station, Norway in September, 1990. Because of this, SCANG held Operational Readiness Exercises (ORE) during its Unit Training Assemblies (UTA) throughout 1990. These OREs included:

- \* Chemical warfare exercises,
- \* Mobility exercises, and
- \* Preparations for deployment to Norway.

However, because of the growing crisis in the middle east and the resources required to meet the threat, SCANG's ORI in Norway was cancelled in September, 1990. Instead, another ORI was scheduled for February in Savannah, Georgia. This rescheduling caused the South Carolina Air National Guard to continue training for deployment in a war zone.



As events were to prove, this training was needed for something more serious than an ORI. During this period, the Ninth Air Force Commander, General Charles Horner stationed at Shaw AFB, Sumter, S. C. was posted to the middle east. Tactical Air Command and Ninth Air Force are the units to which the South Carolina Air National Guard is assigned. In addition to General Horner's deployment, F-15E squadrons from Seymour Johnson AFB, N. C., F-15C squadrons from Langley AFB, Virginia, and F-16 squadrons from Shaw AFB, S. C. were sent to the middle east.

These events would foreshadow the South Carolina Air National Guard's eventual role in the Persian Gulf War. As 1990 entered its final months, SCANG and the 169th Consolidated Aircraft Maintenance Squadron (CAM) would find itself cast in a major supporting role for allied operations against the Iraqi military forces occupying Kuwait.

## Chapter II

### November 1990, Predeployment

During the November Unit Training Assembly (UTA) on the first weekend of the month, CMSgt. Gerald Stoudemeyer and MSgt. Jackie LeMacks traveled to Tactical Air Command (TAC) headquarters at Langley AFB, Virginia. The purpose of the trip was to receive information on the compatibility of the F-16/A and F-16C to operational conditions of the Desert Shield theater of operations. From this initial contact developed the sequence of events that led to the deployment of the South Carolina Air National Guard to Saudi Arabia and the unit's participation in the Persian Gulf War.

During November a "Ready Team" from the National Guard Bureau in Washington, D. C. visited McEntire ANGB. The purpose for the team's visit was to determine what SCANG would need to deploy to a "bare" base located in a remote area. Additionally, the team covered deploying in conjunction with the 174th TFG, New York Air National Guard (NYANG) from Syracuse, New York. During its one week visit, the Ready Team covered topics such as airlift requirements, AIS test station, ECM pod and Time Compliance Technical Order (TCTO) engine needs. The assets used to fix a F-16 contained in SCANG's War Reserve Spares Kit (WRSK) were also examined by the Ready Team.

As a result of the visit, all those involved in the team visit determined that the SCANG was a self-sustaining unit with the exception of some additional personnel needs. Those additional people were needed for the TCTO, ECM pod, and communication-navigation (COMNAV) areas of operations.

On the Monday before Thanksgiving Day, LTC Jerry Risher, LTC Bob Gray, LTC Mike Townsend, LTC John Marshall, and Major Charles Savage visited with the Operations Officer, CENTAF Rear, at Langley AFB, Virginia. Also attending were Colonel Frank Khare from the National Guard Bureau and personnel from the 174th TFG, NYANG. At this meeting all members received a briefing on the location and concept of operations for the two Air National Guard units' participation in Operation Desert Shield. At the time no one really knew what to expect as the deployment base in Saudi Arabia did not exist and no one at the meeting had been to the area of operations.

During that same week, SCANG's 240th Combat Communications Squadron was called to active duty along with the SCANG's 169th WSSF Security Police Flight and the 169th Mission Support Squadron (Prime Ribz). Eventually the Communications and Mission Support Squadrons would deploy to the same air base as the 157th TFG and 169th CAM squadrons. The 169th WSSF Security Police Flight however, was deployed to Jeddah, Saudi Arabia. 7



### Chapter III December 1990, Predeployment

On the first weekend in December during its regularly scheduled UTA, SCANG personnel learned that the 157th Tactical Fighter Squadron (TFS) and the 169th CAM Squadron had been put on alert. This alert would precede these units' eventual call to active duty and deployment to Saudi Arabia. On that first weekend all personnel assembled in the base hanger to listen to LTC Jerry Risher notify everyone of the units' status. LTC Risher also told everyone that the 240th Combat Communications Squadron and the 169th Mission Support Squadron had left South Carolina for Dover AFB, Dover, Delaware and were now on their way to the middle east.

During that UTA, the CAM Squadron began its mobility processing to have everyone prepared to deploy to the Persian Gulf. All personnel went through the mobility process updating their personnel records, medical records, including any inoculations required, and receiving personal items such as desert boots.

After the UTA and until the actual call up, full time CAM personnel implemented engine TCTO and time change items, conducted phase inspections and reviewed manning documents. Full time United States Air Force (USAF) personnel were assigned to CAM to train Guard personnel how to use and repair the 28 Electronic Countermeasure (ECM) pods the unit had received. Unit Tasking Codes (UTC) for the aviation package, munitions support, and thirty day follow-on personnel were reviewed in accordance with tasking needs. CAM Squadron received AIS mobile test facilities and began assembling the "A" and "C" bags containing chemical warfare and other equipment needed for deployment. Personnel rosters were reviewed to determine if any required positions could not be filled by existing personnel. SCANG personnel again traveled to Seymour Johnson AFB to discuss the deployment and mobility issues. While there, SCANG received a sketch of Al Kharj AFB, the deployment location.

On 21 December 1990, CAM personnel began receiving notification to report for active duty on 26 December 1990. Individuals were told to come to McEntire ANGB at 0800 hours ready to leave for the middle east. Upon arrival, personnel found equipment pallets loaded and staged in the maintenance parking lot ready for shipment to Shaw AFB. As equipment was being moved to Shaw AFB, CAM personnel again went through a mobility processing for final updating of all records. Because of the equipment weight and type of facilities available, all pallets and personnel were scheduled to depart from Shaw AFB.

On Friday morning 28 December 1990, the first group of 180 people to leave for Saudi Arabia assembled at McEntire ANGB for final preparations. This "Leading Edge" group with CMSgt. James Bowie as troop commander, left from Shaw AFB on the morning of 29 December 1990 aboard a C-141 transport aircraft. The remaining elements of the Leading Edge group left McEntire ANGB that same morning, aboard three C-130 aircraft for the first leg of the journey to Seymour Johnson AFB, N. C. At Seymour Johnson AFB, the group which included Major Charles Savage, 169th CAM Sq. Commander, boarded two KC-10 air refueling aircraft for the nonstop flight to Al Kharj AFB, Saudi Arabia.



During the afternoon, 24 F-16's of SCANG's 157th TFS took off from McEntire ANGB for the 18 hour flight to the middle east. SCANG had eight spare F-16's leaving with the original 24 aircraft and the launch was conducted by members of the Alabama Air National Guard from Danley Field, Alabama. Aircraft no. 289 returned to McEntire because of a stuck oxygen valve regulator and was replaced by aircraft no. 532. Twenty-two SCANG F-16's landed at Al Kharj AFB, Saudi Arabia while one aircraft, accompanied by a "sympathy" aircraft, landed in Egypt because of an in-flight emergency. The two aircraft flew into Al Kharj AFB on the following Wednesday, 2 January 1991.

After 30 December 1990, SCANG personnel began leaving in 22 separate groups called "chocks". The final chock of "Trailing Edge" personnel was scheduled to arrive in Saudi Arabia 10 to 14 days after the departure of the Leading Edge personnel. These people began leaving McEntire ANGB on 9 January 1991. While awaiting departure dates, personnel were given time off to visit with their families and those individuals in Saudi Arabia maintained contact with the people at McEntire ANGB. On 16 January 1991, the last chock arrived at Al Kharj AFB after a four day delay at Torrejon AFB in Madrid, Spain. After the initial group, all chocks departed South Carolina from Shaw AFB, on C-141 aircraft with a thirty day "follow-on" group of people arriving on 4 February 1991. With the arrival of the follow-on group, SCANG had all of its required personnel in Saudi Arabia.

#### Chapter IV January 1991, Deployment

With the coming of the new year, South Carolina's Air National Guard would make the transition from a part-time military reserve unit to a full time fighting force. World events occurred which transformed the defensive nature of Operation Desert Shield into one of the most effective air and land military campaigns known as Operation Desert Storm. SCANG's contribution to this operation would be graded as first rate among all of the Air Force units participating in the liberation of Kuwait.

On 30 December 1990, the Leading Edge group landed at Al Kharj AFB, Saudi Arabia. As the first group of CAM personnel deplaned, SCANG's F-16's were still taxiing to the parking ramp. Ground crews from Seymour Johnson AFB were guiding the aircraft to their parking areas as pilots from already parked F-16's waited under the aircrafts' wings.

What greeted the first SCANG arrivals was a bare base with tents and hangers already erected but little else. The base did have a mess tent and this proved to be one of the few "blessings" afforded to people on the scene. However, some tents did not have any power, there were not enough beds, no transportation and a limited number of latrines. In addition, the Guard units had to negotiate with the active duty units for hanger and shop space on the flight line.

Although everyone was tired, they began by working 18 to 20 hour days. Everything from filling sandbags, building floors to setting up the hanger working area had to be done. An additional C-141 transport aircraft was needed to transport the unit's War Reserve Spares Kit (WRSK), additional Munitions Branch personnel and munitions trailers. Overall, the largest problems confronting the CAM Squadron were logistics and the lack of personnel. As if this was not enough, the SCANG was expected to be prepared to go to war!



SCANG set about establishing its pod and SASE facilities while consolidating some operations with the 174th TFW from the New York Air National Guard. Functions such as munitions, avionics, and the battery shop were consolidated with the Syracuse, New York based 174th. Some shops such as Air Ground Equipment (AGE) and Fabrication, which includes sheetmetal, machine, NDI and corrosion control sections, were integrated into the airbase's operations.

For the first four days SCANG was in Saudi Arabia, the F-16's did not fly. On 2 January 1991, CAM Squadron ran the aircraft engines while a sand storm blew about the air base. A big problem during the first day of flying was seven ground aborts occurred because of Emergency Power Unit (EPU) problems. Eventually, the EPU problem was solved with long hours of work and ingenuity on the part of the squadron's Repair and Reclamation (R/R) and Environmental Control System (ECS) personnel. When a valve change to the EPU was effected, the problem cleared up and the change proved effective for the duration of the war.

Four major problems confronting CAM Squadron was, WRSK capability, additional munitions equipment and personnel needs, establishing the SASE facilities, and getting a wing-tank build-up operation underway. From the third until 10 January 1991, the unit flew 24 sorties per day. After 'standing down' on the eleventh, SCANG flew 20 aircraft missions on 12 and 13 January. From 14 January 1991 until 17 January 1991, the SCANG stood down with its F-16's ready and on alert for the coming of Operation Desert Storm.



**Chapter V**  
**Operation Desert Storm**

**DAY ONE: COMBAT OPERATIONS**

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0642-1805 Hours  
No. Bombs Dropped: 68  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 1

Date: 17 January 1991  
FMC Rate: 100%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 27  
No. Code Two: 3  
No. Code Three: 6

**SYNOPSIS:**

**MISSION I:** Carrying two Mark-84 2,000 pound bombs apiece, 20 F-16's of the South Carolina Air National Guard (SCANG) flew their first combat mission as a unit against 10 Iraqi surface-to-air (SAM) missile sites positioned in Kuwait City, Kuwait. It was also the first combat sorties launched by the 169th CAM Sqn. and the first time that SCANG had launched that many planes at one time. Targets for this mission were located 40 to 50 minutes flying time from the CAMS' deployed location at Al Kharj Air Base.

With one exception all aircraft released their ordinance on the targets and 20 planes returned to base carrying wing tanks. Four planes had weapon release problems but three managed to manually drop their bombs and one plane experienced a hot light problem. None of the fighters received any battle damage.

Lead Pilot: Major George B. Jernigan

A/C Tail No.: 305

**MISSION II:** Under clear skies with some scattered clouds, 16 SCANG F-16's accompanied by 16 F-16's from the NYANG took off on their second mission of the day. Loaded with two Mark-84 2,000 pound bombs, the F-16's dropped the ordinance on airfield targets in Kuwait. The SCANG experienced two aircraft ground aborts during this operation, nos. 317 and 288, which was delayed by two hours due to FRAG changes in the mission plan. During the mission, plane no. 312 turned back because of fuel feed problems and a bad pod.

None of the planes suffered battle damage or dropped fuel tanks although they encountered antiaircraft artillery (AAA) fire. All of the aircraft dropped their bombs. Prior to the mission the CAM Sqn. changed an engine on plane no. 291.

Lead Pilot: Major Timothy R. Rush

A/C Tail No. 314



**DAY ONE: COMBAT OPERATIONS** continued

**DAILY LOG:** The early morning of 17 January 1991 had F-15E's (Screaming Eagles) from the 4th Tactical Fighter Wing (TFW) taking off at 0300 hours to commence the first air strikes of Operation Desert Storm against Iraqi military targets. For SRA Sarah E. Claytor, who was working the three p.m. to one a.m. shift for the 169th CAM Sqn. orderly room, the preceding hours had been filled with excitement. At 0100 hours, the base security police had alerted the flight line that small arms fire was heard and for all personnel to take cover. SRA Claytor immediately got under a table for safety. The alarm proved to be false though as the security police learned the "small arms fire" was coming from a malfunctioning loud speaker.

At around 0345 hours a Red Alert was sounded when a commercial cargo airliner flew into the base's air space and was intercepted by air defense fighter interceptors. The interceptors directed the plane to land and security police surrounded the aircraft in case terrorists were aboard. After the plane was judged not to be a threat, the security police called off the alert. Shortly after the all clear signal, another commercial cargo airliner flew into Al Kharj air space creating another Red Alert situation with the same results as the first incident.

For people living on the base these early morning alerts created a lot of commotion. Speaking with a security policeman (SP) earlier in the evening, TSgt. James Lee was told by the SP that 20 F-15's had just taken off. While talking Lee and the SP watched four more take off. Upon returning to his tent, Lee instructed his tent mates to sleep in their clothes as, "something was up." When the first alert signal came, Lee said he, "never saw people move so fast" to get to their bunkers. When the second alert occurred, they moved even faster, Lee said. He said that, "all the training at McEntire paid off."

Moving fast was the situation noted in the men's showers. One man, minus his clothes, ran from the shower to the bunkers carrying his towel in his hands.

On the flight line the F-15's began returning at around 0500 hours. As the returning fighters passed the 169th's hanger area ground crews gave the pilots "thumbs up" and in return the pilots raised the speed brakes on the F-15's. As the sun arose over the Arabian desert 20 F-16's from the SCANG and 14 from the 174th TFW, New York Air National Guard (NYANG), started their engines in preparation for their first air strike against Iraqi targets in Kuwait. With a SCANG F-16 leading the force, the fighters moved onto the runway and at 0740 hours began taking off.

Approximately two hours later all 34 planes returned to base after a successful mission over the assigned targets. After the returning SCANG pilots had gathered in the Operations Building, a cheer went up among the crowd to celebrate the SCANG's first unit combat mission.



## DAY TWO: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0740-1700 Hours  
No. Bombs Dropped: 0  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 0

Date: 18 January 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 28  
No. Code Two: 2  
No. Code Three: 6

### SYNOPSIS:

**MISSION I:** With 12 planes from the NYANG following, 20 F-16's from the SCANG led a mission into Kuwait to bomb airfields and SAM sites. Loaded with two 2,000 pound Mark 84 or two CBU-87 bombs, the fighters kicked up quite a lot of dust on an already windy day during their warm up phase. While warming up, plane no. 532 aborted due to a Mode four Identify Friend or Foe (IFF) problem. Under an almost cloudless sky the airplanes took off, again kicking up a lot dust across the airfield. The F-16's were unable to complete their mission however, due to sand storms over the target.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 299

**MISSION II:** For the second time since operations began, SCANG F-16's carried CBU-87 cluster bomb units on a mission. The fighters also carried Mark-84's using a new classified fuse which causes the bomb to explode at a designated height above the ground. Twelve F-16's from the NYANG accompanied the SCANG squadron on this raid. However, none of the F-16's could find their targets due to sandstorms and all planes returned with their bombs. None of the planes sustained any battle damage and all planes returned with their wing tanks.

Lead Pilot: LTC Charles W. Plunket

A/C Tail No.: 297

**DAILY LOG:** Again at 0300 hours the base experienced another Red Alert triggered by the Iraqis firing missiles on Tel Aviv, Israel and one toward a military target in eastern Saudi Arabia. The alert was called off shortly after it had commenced. However, at 0400 hours a Yellow Alert, MOP Level II was sounded causing everyone to don their chemical warfare suits. The MOP II level lasted only a short period of time.

A depletion of Halon caused the CAM Sqn. to make an emergency requisition. Halon could not be ordered locally as the day was Friday, a religious holiday in the Muslim world. Other maintenance issues included: A/C Tail No. 312 with a fuel imbalance problem which required the changing of a control valve. The F-16 was taken on a confidence flight and returned to base as a Code One airplane. A/C Tail No. 314 had a cracked intake which the base Combat Logistics Support Sqn. (CLSS) repaired in the CAM's hanger. Today's mission marked the first time that the CBU-87 antipersonnel bombs were used.



### DAY THREE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0600-1655 Hours  
No. Bombs Dropped: 62  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 3  
No. Air Aborts: 1

Date: 19 January 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 19  
No. Code Two: 5  
No. Code Three: 8

### SYNOPSIS:

**MISSION I:** At 0600 hours 16 SCANG F-16's started their engines to begin the first of three scheduled air strikes against Iraqi targets. However, due to thick fog enveloping the air base the mission was cancelled at 0630 hours due to bad weather.

Lead Pilot: Major George R. Jernigan      A/C Tail No.: 295

**MISSION II:** For the first time SCANG F-16's were assigned SAM missile sites and AAA targets inside Iraq. Planes nos. 295, 299 and 317 experienced ground aborts and were replaced by aircraft nos. 297, 312 and 325. As the planes began to taxi for takeoff, the sandstorm intensified to the point where individuals working on the far end of the airplane start-up area were obscured to the people working on the near end of the start-up area. However, all planes managed to launch. The F-16's received some SAM missile and AAA fire over the targets but none received any battle damage. All planes dropped their bombs and none dropped their wing tanks.

Lead Pilot: Major George R. Jernigan      A/C Tail No.: 312

**MISSION III:** This was the first day of operations in warm weather as temperatures reached 83 degrees Fahrenheit. Eight of SCANG's F-16's were armed with Mark-84 bombs while another eight carried CBU-87's. During the operation aircraft no. 325 had to return to base due to a Mode Four failure. The remaining 15 went on to their targets which again were located in Iraq. Iraqi tanks were the SCANG's targets however, the F-16's had to bomb using coordinates because of bad weather over the target. The F-16's did not receive any SAM missile or AAA fire from Iraqi forces and all returned to base without battle damage. All 15 dropped their bombs and none dropped their wing tanks.

Lead Pilot: Major Timothy R. Rush      A/C Tail No.: 295



**DAY THREE: COMBAT OPERATIONS continued**

**DAILY LOG:** Beginning at 2200 hours the day before, a Yellow Alert MOP Level II was declared on base. This caused many people to sleep in their chemical warfare suits as the MOP Level II condition was rescinded at 0605 hours. The cause was continuous Iraqi "SCUD" missile attacks against Israel. At 0730 hours a condition Red Alert was sounded but was called off around 0740 hours when the SP's learned that the alert was for another air base further east. At 0500 an F-15 began leaking fuel during its End-of-Runway (EOR) check. Emergency vehicles responded to the situation as the pilots had to abandon the aircraft. The fire department soon had the emergency under control. At approximately 0900 hours sandstorms began to blow across the air base. The SP's also called a Yellow Alert MOP II at 1645 hours but within minutes sounded the all clear.

In order to successfully launch the third scheduled mission of the day, the CAM Sqn. had to hustle to repair five Code Three airplanes and to perform cross loads on the aircraft.

As the SCANG's F-16's were returning, two F-16's from Shaw AFB, Sumter, S. C. landed and refueled at approximately 1645 hours. Once refueling was completed, the two aircraft proceeded on to their deployed base in the United Arab Emirates (UAE).



## DAY FOUR: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0600-1510 Hours  
No. Bombs Dropped: 32  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 20 January 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 16  
No. Code One: 6  
No. Code Two: 4  
No. Code Three: 6

### SYNOPSIS:

**MISSION I:** Fog shrouded the flight line as 16 of SCANG's F-16's started their engines at 0600 hours. As the fog grew thicker over the dew covered air base, orders were issued to cancel the mission at 0635 hours and the pilots shut down the engines.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 290

**MISSION II:** The afternoon mission witnessed no ground or air aborts as 16 SCANG F-16's flew to Kuwait on a mission to bomb an Iraqi artillery brigade. Bombs were dropped from 35,000 feet on coordinates because bad weather obscured the pilots view of the target. No SAM missiles or AAA fire was directed at the planes. The planes did not receive any battle damage nor did any drop their wing tanks. For this operation, the F-16's carried two Mark-84 or CBU-87 bombs and all planes dropped their bombs. This was the second day that SCANG did not accompany or was accompanied by F-16's from the NYANG.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 290

**DAILY LOG:** The CAM Sqn. was still without Halon which is added to the F-16's fuel to suppress fire in the airplane's fuel lines should they be penetrated by enemy gunfire. Fresh supplies were suppose to arrive this evening.

As the day progressed, the sky cleared and the day became pleasantly warm.



## DAY FIVE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0600-1505 Hours  
No. Bombs Dropped: 0  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 21 January 1991  
FMC Rate: 96%  
No. Planes: 32  
No. Sorties: 16  
No. Code One: 10  
No. Code Two: 3  
No. Code Three: 3

### SYNOPSIS:

**MISSION I:** For the second day in a row thick morning fog covered the air base. Despite the overcast, 16 SCANG F-16's started their engines at 0600 hours in preparation for the morning mission. Again bad weather prevailed and at 0620 hours the mission was cancelled and the aircraft engines were shut down. Airplane no. 299 was put in for an Aircraft Phase Inspection and will be out of commission for approximately two days.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 290

**MISSION II:** Under a clear sky and warm weather, 16 F-16's carrying two CBU-87 bombs apiece started their engines at 1220 hours. The SCANG fighters were preparing for the afternoon's mission against Iraqi ground forces in Kuwait. However, the mission was cut short as the planes turned back early from the target due to bad weather. The F-16's returned to base with no battle damage and carrying all their bombs and wing tanks.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 290

**DAILY LOG:** At 2200 hours the air base went on a Red Alert, MOP Level IV. Personnel were warned to take cover but the alert was called off after a short period of time. Al Kharj Air Base was then put on a Yellow Alert, MOP Level II which meant that people, for the second time in three nights, had to sleep in their chemical warfare gear. A wake up call was not long in coming. At 0100 hours the base went on a Red Alert, MOP Level IV and base personnel were warned to take cover. During the alert the condition changed from Red to Black for the first time since hostilities began on 17 January 1991. Condition Black indicates that biological or chemical weapons are present. At 0145 the all clear was sounded but the MOP Level was kept at II which required people to stay in their chemical warfare suits throughout the night. The alerts were prompted by nine Iraqi SCUD missiles being fired at Riyadh, Saudi Arabia. They were the first missiles fired at the capitol city since hostilities began. Six of the missiles aimed at the city were downed by U. S. Army Patriot SAMs. The three remaining missiles went over the Arabian capitol with two meeting the same fate as the first six, and the last missile crashing into the sea. Secretary of Defense Dick Cheney reported to the news media today that Iraq has "plenty" of SCUD missiles and about 40 launchers. The launchers are more important as they are the means to deliver the missile to a target.

At 0745 hours the base went on another Red Alert, MOP Level IV but this alarm was called off after only five minutes.

## DAY SIX: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0600-1545 Hours  
No. Bombs Dropped: 64  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 0

Date: 22 January 1991  
FMC Rate: 96%  
No. Planes: 48  
No. Sorties: 32  
No. Code One: 19  
No. Code Two: 4  
No. Code Three: 9

### SYNOPSIS:

**MISSION I:** At 0700 hours SCANG began starting the F-16's engines for the morning mission. But as the airfield was again covered in fog, at 0720 hours the mission was rescheduled and the engines shut down. Plane no. 299 was removed from Phase today.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 290

**MISSION II:** This mission was scheduled after the previous one was cancelled due to bad weather. SCANG's pilots were targeting troop concentrations inside Iraq and were able to take off from Al Kharj AFB even though fog still covered the base. The F-16's dropped their CBU-87's antipersonnel-antiarmor bombs from around 26,000 feet due to bad weather over the target. Although too high for it to be effective, the fighters did receive AAA fire but no SAM missiles. All of the planes dropped their bombs and none of them dropped their wing tanks or suffered any battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 290

**MISSION III:** This final mission of the day had the CAM Sqn. working to replace two ground aborts on aircraft nos. 317 and 325. The fighter planes were quickly replaced by aircraft nos. 295 and 306. This was the fourth consecutive operation in which aircraft no. 290 lead the F-16's off the runway. Each SCANG fighter was loaded with two CBU-87 antipersonnel-antiarmor bombs and the targets were ground troop concentrations in Iraq. All of the planes returned from the mission carrying their wing tanks and without battle damage. All of the F-16's dropped their bombs. The Iraqis did not put up any AAA fire or SAM missiles against the SCANG planes.

Lead Pilot: Capt. Dean D. Pennington

A/C Tail No.: 290

**DAILY LOG:** At 2230 hours on the evening before the base again went into a Yellow Alert, MOP Level II which required people to sleep in their chemical warfare suits. After the MOP Level II was rescinded at 0630 hours a Red Alert, MOP Level 0 was called at 0720 hours and called off at 0728 hours. This was the third straight day that a Red Alert was called at around 0730 hours. Each alert lasted less than 10 minutes.



## DAY SEVEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0520-1710 Hours  
No. Bombs Dropped: 86  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 6  
No. Air Aborts: 0

Date: 23 January 1991  
FMC Rate: 92%  
No. Planes: 48  
No. Sorties: 46  
No. Code One: 29  
No. Code Two: 6  
No. Code Three: 11

### SYNOPSIS:

**MISSION I:** For the first time in three days weather did not cancel the morning's mission. However, SCANG's F-16's were plagued by six ground aborts. Four spare F-16's were used for the mission but two aircraft turned around on the taxi ramp, too late to put any more spares into action. The six aircraft affected by ground aborts were: A/C No. 308 for an inoperable Electronic Counter Measure (ECM) pod, A/C No. 297 for a Mode IV IFF problem, A/C No. 320 with a UHF radio outage, A/C No. 312 for a defective Central Air Data Computer (CADC), A/C No. 291 for a radar threat warning equipment failure, and A/C No. 532 for problems with hydraulic pressure. Despite these problems, 14 SCANG F-16's proceeded with the mission against "Republican Guard" troop concentrations in Iraq. Thirteen of the aircraft dropped their CBU-87 bombs and none of the planes dropped their wing tanks. A/C No. 319 did not drop its bombs due to a Code Three ECM pod problem. None of the aircraft suffered battle damage.

The CAM Sqn. reported that A/C No. 293 has gone into an Aircraft Phase I Inspection which is due every 200 hours of flying time on a F-16.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 290

**MISSION II:** For the second mission of the day, CAM Sqn. experienced no aborts on the ground and all scheduled 16 SCANG fighters successfully took off for another successful operation over Iraq. One aircraft, no. 312, did not drop its bombs due to a Code Three ECM pod failure and an engine afterburner blowout. None of the planes dropped their wing tanks or had any battle damage.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 290

**MISSION III:** Under clear skies, 16 SCANG F-16's carrying two CBU-87 antipersonnel/antiarmor bombs apiece took off for the third and final mission of the day. CAM Sqn. had no ground aborts and the F-16's experienced no air aborts during the mission. A/C no. 319 did not drop its bombs due to a Code Three ECM pod failure. None of the aircraft had battle damage and none dropped their wing tanks.

Lead Pilot: Major Waymond C. Nutt

A/C Tail No.: 290

**DAILY LOG:** CAM Sqn. began supplying individuals to the base security police to work as augmentees to the force guarding the base. Each group of individuals will work for the SP's on a two week rotating basis.

After six days, the CAM Sqn. finally received 2,000 pounds of Halon. However, CAM is experiencing a shortage of Hydrazine. A/C no. 312 experienced an engine afterburner blowout during the second mission. CAM Sqn. replaced the defective engine making it the second engine change performed by the squadron in 24 hours.



## DAY EIGHT: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0440-1730 Hours  
No. Bombs Dropped: 104  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 24 January 1991  
FMC Rate: 84%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 20  
No. Code Two: 5  
No. Code Three: 11

### SYNOPSIS:

**MISSION I:** This day's missions saw the smallest flight of SCANG F-16's to go against targets in Iraq. Sending eight aircraft, four armed with two CBU-87 and four with two Mark-84 bombs apiece, the fighters took off for Republican Guard army positions inside Iraq. CAM Sqn. experienced no ground aborts and the mission was unhampered by air aborts. All planes dropped their bombs and none dropped their wing tanks or suffered battle damage.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 290

**MISSION II:** This mission reported an attack on a fuel storage facility in Iraq. Again, eight F-16's completed a successful mission as there were no ground or air aborts. All aircraft dropped their bombs and none dropped their wing tanks or received any battle damage. As with the day's first mission, four planes were loaded with two Mark-84 bombs apiece and four with four CBU-87 bombs. This is the first time the F-16's have carried more than two bombs on a mission.

Lead Pilot: Capt. Jeffrey C. Gurney

A/C Tail No.: 320

**MISSION III:** For this third of five missions, the SCANG sent eight F-16's against troop concentrations in Iraq. The aircraft did not encounter any SAMs or AAA fire and did not suffer any battle damage. All planes dropped their bombs and none dropped their wing tanks. The take off was smooth as the CAM Sqn. did not have any ground aborts.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 290

**MISSION IV:** All eight aircraft on this mission returned with no battle damage after all of their delivering Mark-84 and CBU-87 bombs on targets in Iraq. No planes suffered battle damage and none dropped their wing tanks.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 320

**MISSION V:** For the last mission of the day, SCANG put four F-16's into the air carrying either two Mark-84 or four CBU-87 bombs apiece. All aircraft dropped their bombs and none experienced battle damage and none dropped their wing tanks.

Lead Pilot: Capt. Kenneth R. March

A/C Tail No.: 290

**DAILY LOG:** CAM's fuel tank build up team has constructed 180 wing tanks to date. Four months ago this workforce, consisting of SCANG augmentees who possess varied AFSC's, were practicing for an Operational Readiness Inspection (ORI). Today their average output of nine tanks per 12 hour work shift, equals the output of the base's active duty tank buildup team deployed from Holmstead AFB, Florida.

For the first time since hostilities began, the SCANG flew five missions in one day. In addition, today's operations were longer than the previous sorties. Previously, missions averaged 1.8 hours in duration whereas today's averaged 2.8 hours.



## DAY NINE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0430-1700 Hours  
No. Bombs Dropped: 100  
No. Wing Tanks Dropped: 2  
No. Battle Damaged A/C: 1  
No. Ground Aborts: 4  
No. Air Aborts: 0

Date: 25 January 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 35  
No. Code One: 25  
No. Code Two: 2  
No. Code Three: 8

### SYNOPSIS:

**MISSION I:** For today's first mission, SCANG sent eight F-16's loaded with four CBU-87 or two Mark-84 bombs apiece, to Iraq. During the engine warm up phase, aircraft no. 312 aborted due to an egress inertia reel problem and was replaced by no. 292. All of the F-16's dropped their bombs and none dropped their wing tanks. None of the aircraft suffered any battle damage.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 312

**MISSION II:** The second mission of the day was hampered by a ground abort which occurred too late to use a replacement. Aircraft no. 299 experienced a chaff-flare problem which left only seven F-16's to complete the mission. During the mission, A/C no. 295 did not drop its bombs due to a Code Three, ECM pod failure. The six remaining planes dropped their bombs and none of the seven dropped their wing tanks. None of the planes suffered any battle damage.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 390

**MISSION III:** For the first time a SCANG F-16 experienced battle damage during a mission over the target. Aircraft no. 322, piloted by Capt. John J. Johnson received shrapnel damage during a bombing run. The pilots encountered bad weather over the target area but all aircraft dropped their bombs. None of the aircraft dropped their wing tanks. The F-16's were configured with four planes carrying two Mark-84 and four carrying four CBU-87 bombs.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 295

**MISSION IV:** Upon the completion of this mission, Capt. Deane D. Pennington piloting aircraft no. 305 reported dropping his wing tanks. This is first time since combat operations began that a SCANG pilot has had to drop his wing tanks and his triple ejector rack (TER). The F-16's were configured again to carry four CBU-87 or two Mark-84 bombs. All planes dropped their bombs and no planes received battle damage.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 290

**MISSION V:** For the final mission of the day, all four of the SCANG F-16's dropped their bombs on target and did not suffer any battle damage. None of the aircraft dropped their wing tanks. During warm-up, aircraft no. 293 aborted for an engine EEC light problem. The plane was replaced by aircraft no. 288.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 312

**DAY NINE: COMBAT OPERATIONS continued**

**DAILY LOG:** In addition to the normal flow of fighter and military cargo aircraft on Al Kharj AFB, two U. S. Air Force AWACS aircraft were parked on the start up ramp next to the NYANG unit. It was the first visit by AWACS planes since the arrival of SCANG to the base.

During the night, CAM Sqn.'s tank build up team reached its goal of constructing 200 wing tanks for the F-16's. The build up team has been keeping pace with its active duty counterpart from Holmestead AFB although the team is composed of augmentees with various AFSCs.

Today was the second day that the time for preparing a returning F-16 for combat was 30 to 45 minutes. During SCANG's Operational Readiness Inspections (ORI) "turn around" time is usually one hour: 15 minutes and under normal operations, two hours.

Although \$75,000 worth of equipment is available to SCANG to repair battle damaged aircraft, it took SMSgt. D. K. Wilson two hours and speed tape worth \$20 to repair F-16 no. 322.. The F-16 received its damage during the third mission of the day.



## DAY TEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0515-1515 Hours  
No. Bombs Dropped: 62  
No. Wing Tanks Dropped: 1  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 6  
No. Air Aborts: 0

Date: 26 January 1991  
FMC Rate: 96%  
No. Planes: 32  
No. Sorties: 31  
No. Code One: 18  
No. Code Two: 6  
No. Code Three: 8

### SYNOPSIS:

**MISSION I:** This morning's first mission had two ground aborts, A/C no. 290 for a UHF radio and flight control self test, and A/C no. 296 for an EOR ECM pod. A/C no. 290 was replaced by A/C no. 293 whereas, A/C no. 296's abort occurred too late to substitute another F-16. The seven remaining F-16's took off to bomb Republican Guard positions in Iraq using Mark-84 ordinance. Weather was clear over the target and all seven planes dropped their bombs. No planes dropped their wing tanks and none suffered battle damage.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 292

**MISSION II:** Armed with two Mark-84 bombs apiece, eight F-16's took off under clear skies to hit targets inside Iraq. Before taxiing to the runway, CAM Sqn. had two aircraft aborts. A/C no. 321 aborted because of a defective ECM pod and A/C no. 325 would not start. The two planes were replaced by A/C nos. 304 and 295. All eight planes dropped their bombs and none experienced battle damage. Aircraft, no. 305, because of a relay problem, dropped one of its wing tanks.

Lead Pilot: Capt. Andre Kokal

A/C Tail No.: 305

**MISSION III:** The third mission of the day had SCANG F-16's again bombing troop positions in Iraq with Mark-84 bombs. All eight aircraft dropped their bombs and none dropped their wing tanks. No F-16's received battle damage on this mission.

Lead Pilot: Capt. Kenneth R. March

A/C Tail No.: 324

**MISSION IV:** During the warm-up phase, two F-16's aborted. A/C no. 306 aborted because of a Mode IV IFF problem and A/C no. 319 because of a CADC failure. The aircraft were replaced by F-16 nos. 319 and 320. Again, the aircraft carried two Mark-84 bombs each to the targets and the pilots reported firing their guns. All planes dropped their bombs and none dropped their wing tanks. No SCANG F-16 received any battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 305

**DAILY LOG:** During the night CAM Sqn. personnel went to Riyadh to repair a Hahn AFB F-16 which is deployed to the UAE. The aircraft had a failed hydraulic line in the fuel tank and made an emergency landing at a Saudi military air field near the capitol city.

ECM pods are beginning to hamper operations as defective pods are preventing seven aircraft from flying. CAM has requested technical assistance from CENTAF and ordered more pods plus a SACE. Situation reports have also been sent to CENTAF.

CAM Sqn., in compliance with base directives, began to send nonessential people back to South Carolina. The first group of 18 individuals were scheduled to depart Al Kharj AFB today.

## DAY ELEVEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0545-1455 Hours  
No. Bombs Dropped: 58  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 2

Date: 27 January 1991  
FMC Rate: 96%  
No. Planes: 32  
No. Sorties: 32  
No. Code One: 18  
No. Code Two: 4  
No. Code Three: 10

### SYNOPSIS:

**MISSION I:** For the first mission of the day, eight SCANG F-16's were configured for two Mark-84 bombs apiece. During the warm-up phase aircraft no. 288 had a backup fuel control (BUC) problem and was replaced by F-16 no. 319. As the sun rose over the chilly desert air base, the SCANG fighters took off for targets inside Iraq. During the mission, A/C no. 304 had to abort due to a problem with the right wing fuel tank feed and the inertia navigational system. A/C no. 319 accompanied no. 304 back to base. The remaining six planes flew on to their targets where they dropped all bombs. None of the F-16's dropped their wing tanks and none had any battle damage.

Lead Pilot: Major John N. Bellinger

A/C Tail No.: 325

**MISSION II:** For the second mission of the day, SCANG sent eight F-16's armed with two Mark-84 bombs apiece to bomb targets inside Iraq. CAM Sqn. experienced no ground aborts and all aircraft dropped their bombs. No F-16's dropped their wing tanks and no F-16's received any battle damage.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 312

**MISSION III:** With a sandstorm blowing across the air base, the eight SCANG F-16's of the day's third mission returned from bombing targets in Iraq. All eight aircraft dropped their bombs without sustaining any battle damage or dropping their wing tanks.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 325

**MISSION IV:** During the last mission of the day, aircraft no. 294 did not drop its bombs due to a Code Three pod and harness strap problems. The remaining seven SCANG F-16's dropped their Mark-84 bombs on targets in Iraq. None of the planes suffered battle damage or dropped their wing tanks. Upon returning from the mission, the eight F-16's made a successful landing despite a sandstorm blowing across the runway.

Lead Pilot: LTC Richard W. Noble

A/C Tail No.: 290



**DAY ELEVEN: COMBAT OPERATIONS continued**

**DAILY LOG:** CAM Sqn. personnel had to return to Riyadh for more repair work on the Hahn AFB F-16 which landed at a Saudi air base yesterday. The plane had a hydraulic fuel problem. During their stay in Riyadh, the crew was caught in a Scud missile attack on the city. The crew found themselves alone on the runway after the alarm sounded, as the U. S. Air Force major leading them to the F-16 ran away into the darkness at the first sound of the air raid siren.

Yesterday when the group first arrived to repair the aircraft, they found that the plane needed to be dearmed and defueled. The group also did not have the proper tools needed to work on the F-16 so they improvised until the equipment arrived. Beginning at 0200 hours the repair crew got a light cart and began depaneling the airplane to locate the hydraulic leak.

Once the defective part was located and removed, MSgt. Travis Abernathy, a SCANG metal fabrication specialist, took the part back to Al Kharj AFB. There, he repaired it, performed a quality assurance and pressure check, and returned to Riyadh to install the part.

The missile attack on Riyadh also produced a Red alert on Al Kharj AFB. However, the alert was called off after a short period of time.

## DAY TWELVE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0520-1450 Hours  
No. Bombs Dropped: 46  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 11  
No. Air Aborts: 2

Date: 28 January 1991  
FMC Rate: 92%  
No. Planes: 32  
No. Sorties: 25  
No. Code One: 14  
No. Code Two: 3  
No. Code Three: 8

### SYNOPSIS:

**MISSION I:** During warm-up, CAM Sqn. experienced four ground aborts. Aircraft nos. 302 and 305 had Emergency Power Unit (EPU) problems, no. 314 a right boost pump problem and no. 325 a pilot survival beacon problem. A/C nos. 314, 302 and 325 were replaced by nos. 295, 312 and 321. For aircraft no. 305, the problem occurred too late in the warm-up to get a replacement. Seven SCANG F-16's took off carrying two Mark-84 bombs apiece. All seven returned from their targets without dropping their wing tanks or suffering battle damage. The seven F-16's dropped all bombs over the targets.

Lead Pilot: Capt. Jeffrey C. Gurney

A/C Tail No.: 299

**MISSION II:** Problems continued to plague CAM Sqn. during the morning missions. While warming-up, four aircraft aborted and only one replacement was found. A/C no. 325 had Code Three pod problems, no. 297 had EPU problems, no. 295 had a fuel leak and was replaced by A/C no. 294, no. 532 had a Halon leak and no. 319 was a "sympathy" abort. As a result, only five aircraft carrying two Mark-84 bombs apiece took off for this mission.

On the way to the targets, aircraft no. 294 aborted for a Code Three ECM pod problem. With four F-16's remaining, SCANG pilots flew on to the targets and dropped all of their bombs. None of the planes dropped their wing tanks and none had any battle damage. Pilots reported smoke obscuring the target area.

Lead Pilot: Major Waymond C. Nutt

A/C Tail No.: 306

**MISSION III:** Bad luck during warm-ups continued as the pilot in aircraft no. 290 reported that the engine would not "rotate." This failure of the F-16's engine to start, reduced the number of planes for this mission to seven as no spare was available. The SCANG aircraft were configured to carry two Mark-84 bombs apiece for this sortie. Also, during warm-up the TAC command operations unit asked if the SCANG could fly additional missions today. Due to the many problems with aircraft, SCANG declined.

All seven aircraft dropped their bombs and none dropped their wing tanks. None of the seven aircraft sustained any battle damage during the mission.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 304



**DAY TWELVE: COMBAT OPERATIONS continued**

**MISSION IV:** Only six aircraft were able to take off for this mission as aircraft nos. 291 had EPU and 296 had jet fuel starter problems. There were no replacement aircraft available for this mission. In route to the target, aircraft no. 532 had to abort the mission because of an environmental control (ECS) problem. The remaining five F-16's proceeded to the target where all aircraft dropped their bombs. None of the planes dropped their wing tanks and none experienced battle damage.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 306

**DAILY LOG:** In between the first and second missions, an in-flight emergency was sounded as a commercial Boeing 707 reported having two engines out and 100,000 pounds of fuel on board. The alarm was set off at 0620 hours and the aircraft with tail no. NID 78V landed at Al Kharj AFB at 0635 hours. Security policemen and fire department personnel converged on the commercial carrier as it taxied to the end of the runway. A short time later, the all clear was given. The aircraft was later identified as a Defense Department contract carrier named Buffalo Airlines of Waco, Texas.

One of the emergency power unit aborts caused some maintenance personnel to be exposed to hydrazine. Aircraft no. 532 aborted at the end-of-the-runway for a Halon problem. Upon returning to the warm-up ramp, the pilot turned the fuel switch off causing the airplane's generator to go off-line. These events fired the hydrazine exposing four persons to the substance. The individuals were taken to the base hospital for overnight observation.

## DAY THIRTEEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0520-1530 Hours  
No. Bombs Dropped: 52  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 4  
No. Air Aborts: 2

Date: 29 January 1991  
FMC Rate: 80%  
No. Planes: 32  
No. Sorties: 28  
No. Code One: 20  
No. Code Two: 0  
No. Code Three: 8

### SYNOPSIS:

**MISSION I:** Eight SCANG F-16's lifted off the runway at 0555 hours after a successful warm-up in which no ground aborts occurred. The aircraft were carrying two Mark-84 bombs apiece and all F-16's dropped their explosives on targets in Iraq. None of the airplanes dropped their wing tanks and none suffered any battle damage.

CAM Sqn. is meeting the mission requirements without any spare aircraft. Should a ground abort occur, no replacements are available.

Lead Pilot: Capt. Deane D. Pennington      A/C Tail No.: 305

**MISSION II:** This mission began with two ground aborts as aircraft no. 305 experienced station five ECM pod problems and was replaced by aircraft no. 308. However, no. 308 had Radar Threat Warning System (RTWS) problems and aborted leaving seven planes to fly the mission. In route to the target, F-16 no. 325 aborted because of an ECM pod failure. The six remaining aircraft all dropped their bombs. None of the planes dropped their wing tanks and none received any battle damage. All six SCANG F-16's were loaded with two CBU-87 bombs apiece.

Lead Pilot: LTC George B. Patrick      A/C Tail No.: 321

**MISSION III:** Aborts continued to plague CAM Sqn. as aircraft no. 290 experienced flight control problems. Taking aircraft no. 325 from the 1305 hours mission, maintenance control was able to replace the defective airplane. All eight SCANG F-16's had a successful mission by dropping all of their bombs. None dropped their wing tanks and none suffered any battle damage.

Lead Pilot: Capt. John A. Richardson      A/C Tail No.: 304

**MISSION IV:** To begin the last mission of the day, SCANG had only six serviceable aircraft. During engine warm-up, aircraft no. 288 aborted because of a main fuel shut-off valve problem. However, defective ECM pods is the primary problem keeping SCANG F-16's from flying.

On the way to the target, aircraft no. 302 aborted because of a right fuel tank problem. The remaining F-16's completed the mission dropping all of their bombs. None of the aircraft dropped their wing tanks and none had any battle damage.

Lead Pilot: Capt. Deane D. Pennington      A/C Tail No.: 305

**DAILY LOG:** In an attempt to solve the continuing ECM pod problems, CAM Sqn. obtained another Semi-Automatic Support Equipment (SASE) test station, some additional expert help and six more pods.

CAM Sqn. personnel received word last night that Governor Carroll A. Campbell has exempted all South Carolina Guard personnel serving in the Persian Gulf area from state taxes.

Aircraft no. 320 went into a phase inspection yesterday and will be out until 30 Jan 91.



## DAY FOURTEEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0515-1520 Hours  
No. Bombs Dropped: 46  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 3  
No. Air Aborts: 5

Date: 30 January 1991  
FMC Rate: 92%  
No. Planes: 30  
No. Sorties: 28  
No. Code One: 21  
No. Code Two: 1  
No. Code Three: 6

### SYNOPSIS:

**MISSION I:** Jet fuel starter (JFS) problems prevented aircraft no. 325 from participating in the morning's first mission. F-16 no. 293 replaced the defective airplane as eight SCANG fighters took off in the darkened sky above the Arabian desert.

Shortly after take off, aircraft no. 308 had to abort the mission because of CADC problems. In route to the target three more aircraft aborted the mission. Aircraft nos. 292 and 297 had ECM pod problems and no. 293 had a radar threat warning system problem.

The four remaining F-16's flew onto the artillery and troop concentration targets in Iraq. All four dropped their bombs and none dropped their wing tanks. No F-16 suffered battle damage.

Lead Pilot: Capt. Joseph G. Weston                      A/C Tail No.: 297

**MISSION II:** This mission was flown by seven aircraft as F-16 no. 302 ground aborted because of a right wing tank problem. All seven SCANG fighters dropped their bombs on targets in Iraq and none dropped their wing tanks. None of the aircraft had any battle damage.

Lead Pilot: Major John N. Bellinger                      A/C Tail No.: 321

**MISSION III:** SCANG pilots reported destroying an infantry division and artillery, as the six aircraft on this mission dropped all of their bombs. The pilots also reported receiving ground fire from infantrymen but none of the F-16's had any battle damage. None of the aircraft dropped their wing tanks.

Lead Pilot: Major Barry K. Coln                      A/C Tail No.: 297

**MISSION IV:** ECM pods continued to plagued CAM Sqn. as aircraft no. 308 aborted due to a station five failure. This was the second abort of the mission as aircraft no. 299 aborted on the ground for a JFS no start. Six SCANG F-16's flew to the target and dropped all of their ordinance. None of the airplanes dropped their wing tanks and none suffered any battle damage.

**DAILY LOG:** Again today, CAM Sqn. does not have any replacement aircraft for the missions primarily because of pod problems.

Aircraft no. 320 finished its phase inspection and is awaiting parts in order to be serviceable. Aircraft no. 291 went into its phase inspection today.

A small black and white colored cat was spotted living in the SCANG flight line area between the maintenance and operations tents. Mice have also been seen in the area.

## DAY FIFTEEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0550-1725 Hours  
No. Bombs Dropped: 60  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 0

Date: 31 January 1991  
FMC Rate: 92%  
No. Planes: 30  
No. Sorties: 30  
No. Code One: 28  
No. Code Two: 2  
No. Code Three: 0

### SYNOPSIS:

**MISSION:** Because of the problems with ECM pods, SCANG began sending six aircraft on missions. For the first mission of the day, the CAM Sqn. did not experience any aborts and all F-16's dropped their bombs. None of the aircraft dropped their wing tanks and none had any battle damage.

Lead Pilot: Major George R. Jernigan                      A/C Tail No.: 292

**MISSION II:** SCANG pilots reported clear weather, lots of targets and no threat during today's second mission. All aircraft dropped their bombs and none dropped their wing tanks. No aircraft had battle damage.

Lead Pilot: Major Barry K. Coln                              A/C Tail No.: 317

**MISSION III:** For the third mission, no F-16's were aborted, dropped any wing tanks or suffered any battle damage. All six SCANG aircraft dropped their two Mark-84 bombs on targets inside Iraq.

Lead Pilot: LTC Richard W. Noble                              A/C Tail No.: 292

**MISSION IV:** Good fortune held for CAM Sqn. as no aborts occurred for the fourth straight mission. Each of the six SCANG F-16's dropped its two bombs and none dropped wing tanks. None of the aircraft had any battle damage.

Lead Pilot: LTC George B. Patrick                              A/C Tail No.: 317

**MISSION V:** During warm-up, aircraft no. 319 aborted because of a JFS no start problem and was replaced by no. 295. The no start marred an otherwise perfect day for launches. SCANG's six F-16's dropped all of their Mark-84 bombs and none dropped their wing tanks. No aircraft had any battle damage.

Lead Pilot: LTC Richard W. Noble                              A/C Tail No.: 292



**DAY FIFTEEN: COMBAT OPERATIONS continued**

**DAILY LOG:** Because of the continuing problems with ECM pods, SCANG's mission requirements were changed. Rather than eight plane missions, the unit is flying six plane missions. Under 'normal' circumstances, 'airframes' dictate the number of serviceable aircraft but under current conditions, ECM pods make the determination. Aircraft are available to fly missions, however, the lack of serviceable pods is preventing them from going on missions.

CAM Sqn. maintenance crews worked through the night repairing the numerous aborted aircraft from yesterday's missions. By morning, 22 of the SCANG's 24 aircraft were ready for combat.

CAM Sqn. was informed by CENTAF that the 4th TFW has enough wing tanks to accomplish its mission. CAM Sqn. has built 260 wing tanks because of an outstanding effort by the unit's tank build up crew and its augmentees.

At 1300 hours, an emergency was declared in the aircraft parking ramp area of Seymour Johnson AFB's F-15's. While loading a F-15, a maintenance crew dropped a bomb pinning one man beneath the explosive. Emergency personnel responded to the accident and it was called off at 1320 hours.

The 4th TFW intelligence squadron gave the CAM Sqn. a briefing on the unit's mission and the progress of the war with Iraq. The information was classified and not for public information.

News reports from yesterday tell of Iraqi armor and infantry units crossing from Kuwait into Saudi Arabia to engage allied forces around the port city of Al Khafji. Twelve marines were reported killed and the Iraqis sustained heavy casualties.

## DAY SIXTEEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0555-1745 Hours  
No. Bombs Dropped: 167  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 2

Date: 1 February 1991  
FMC Rate: 96%  
No. Planes: 30  
No. Sorties: 30  
No. Code One: 22  
No. Code Two: 3  
No. Code Three: 5

### SYNOPSIS:

**MISSION I:** Prior to take off, aircraft no. 306 aborted for RTWS problems and was replaced by no. 312. For the first time SCANG F-16's carried six Mark-82 bombs apiece beneath their wings as they lifted off the runway. On the flight to the target, aircraft no. 299 aborted because of an ECM pod problem. The remaining five SCANG F-16's flew onto the target where they released all of their ordinance. None of the fighters dropped their wing tanks and none suffered any battle damage.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 292

**MISSION II:** During the run over the target, aircraft no. 325 had a Mark-82 bomb fail to release and returned to base carrying the armed ordinance. All F-16's dropped their bombs and none dropped their wing tanks. None of the other aircraft had any battle damage.

Lead Pilot: Capt. Deane D. Pennington

A/C Tail No.: 297

**MISSION III:** Aircraft no. 299 experienced a fuel fluctuation problem enroute to the target and had to abort the mission. The SCANG F-16's were tasked with bombing Iraqi bunker positions in Kuwait and the remaining five aircraft dropped all of their bombs. None of the F-16's dropped their wing tanks and none had any battle damage.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 292

**MISSION IV:** All six SCANG F-16's dropped their Mark-82 bombs and none dropped their wing tanks. No aircraft sustained any battle damage.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 297

**MISSION V:** Pilots reported clear weather over the target areas and all six SCANG F-16's dropped their Mark-82 bombs. None of the aircraft dropped their wing tanks and none experienced any battle damage.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 292



**DAY SIXTEEN: COMBAT OPERATIONS continued**

**DAILY LOG:** Aircraft no. 291 was released from its phase inspection today.

An assessment of the previous two weeks combat activity found that sortie generation was plagued, especially on 28, 29 and 30 Jan 91, by maintenance nondeliveries and air aborts. Unserviceability of ALQ 119 ECM pods and fuel feed problems were the primary reasons for these problems.

Continued operation of aged pods at altitudes exceeding 35,000 feet increased the high voltage arcing potential in power supplies and wave guides, resulting in mid and high band failures. This phenomenon has caused numerous air aborts, as well as a reduced number of serviceable pods to adequately configure all Air Tasking Orders (ATO).

This severe impairment of our otherwise high mission capability, was further exacerbated by a rash of fuel imbalance, fuel feed and fuel vesting problems. These problems were associated for the most part with the continued configuration of two 370 gallons external wing tanks. A F-16's internal wing fuel capacity is only approximately 80 gallons. Over the past 30 days, the long term operation of an additional 370 gallons per flight flowing through the wing systems has caused a high rate of failures on wing turbine pumps, wing shuttle valves and wing fuel control valves. There are many lessons to be learned from SCANG's unprecedented length of operating time with this configuration.

The ECM pod serviceability is being enhanced by stringent, in-depth, back-shop repairs which address the obvious high voltage arcing malfunctions. This lengthy, yet prudent and successful investment in time has caused a further dip in the number of pods available.

Recent receipt of the third semiautomatic support equipment (SASE), combined with the receipt of six additional pods on 30 Jan 91, have helped to improve the 169th and 174th's problems with ECM pods. Additionally, the last ATO required lower altitude operations (max. 28,000 ft.). This lower altitude envelope, combined with the other previously cited positive initiatives, resulted in zero pod failures on 31 Jan 91. Over the next week, the 169th will be able to determine whether this is a sound upturn of an unacceptable condition.

## DAY SEVENTEEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0640-1355 Hours  
No. Bombs Dropped: 48  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 0

Date: 2 February 1991  
FMC Rate: 96%  
No. Planes: 24  
No. Sorties: 24  
No. Code One: 22  
No. Code Two: 1  
No. Code Three: 1

### SYNOPSIS:

**MISSION I:** For the first time in days, SCANG sent 12 F-16's on a mission. During warm-up, aircraft no. 297 aborted for an engine thrust control problem and was replaced by no. 292. The F-16's took off in three groups of four planes each loaded with two Mark-84 bombs.

SCANG pilots reported "lots of targets" and clear weather below 17,000 feet with almost no threat to the attacking aircraft. All of the F-16's dropped their bombs on Republican Guard encampments along the Iraqi-Kuwaiti border. No F-16 dropped its wing tanks or sustained any battle damage.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 305

**MISSION II:** During warm-up, aircraft no. 296 had trouble starting and needed rekeying but did not abort. SCANG's F-16's were again configured to carry two Mark-84 bombs apiece.

SCANG pilots reported hitting multiple targets as all 12 aircraft released their bombs. None of the F-16's dropped their wing tanks and none had any battle damage.

Lead Pilot: LTC Richard W. Noble

A/C Tail No.: 305

**DAILY LOG:** Aircraft no. 304 was scheduled for its phase inspection today. To date, CAM Sqn. has completed phase inspections on eight F-16's, one-third of the squadron's aircraft fleet.

Today was the second straight day without an ALQ-119 ECM pod failure. In addition, CAM Sqn. fixed the fuel feed problems on aircraft nos. 302 and 305, and experienced no EPU ground check failures. These factors enhanced the squadron's reliability and serviceability.

Because of sand contamination, the 13th stage EPU control valves, NSN 4810-01-130-7379, have the highest equipment failure rate in the squadron. As a result, the unit has depleted its supply of valves and the 4th TFW is working to resupply the item. CAM Sqn. has also identified zero and low balance WRSK items as well as critical items with zero balances not loaded in the WRSK.

CAM Sqn. has discontinued its fuel tank buildup operation with 242 tanks in stock. At peak production, 18 to 22 tanks were produced each day. Extensive home station training paid off, as this extremely critical task was accomplished using indigenous fuel specialist personnel augmented with additional cross utilized/trained unit personnel.



## DAY EIGHTEEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0630-1725 Hours  
No. Bombs Dropped: 207  
No. Wing Tanks Dropped: 2  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 1

Date: 3 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 28  
No. Code Two: 2  
No. Code Three: 6

### SYNOPSIS:

**MISSION I:** SCANG's F-16's were each armed with six Mark-82 bombs for today's missions. During warm-up, aircraft no. 319's battery failed making its generator malfunction. This caused the F-16's EPU to "fire" requiring the aircraft's hydrazine be purged from the emergency power unit's system. No. 319 was replaced by F-16 no. 290.

During the run over the target, aircraft no. 290 experienced a TER problem and was unable to release three of its bombs. On its return flight, the F-16 was directed to drop its bombs in the theater of operations' "jettison" area. Despite this problem, all of SCANG's F-16's dropped their bombs and none dropped their wing tanks. No aircraft sustained any battle damage.

Lead Pilot: Capt. Kenneth R. March

A/C Tail No.: 321

**MISSION II:** Again configured to carry six Mark-82 bombs each, 12 SCANG F-16's were assigned for the second mission of the day. During warm-up, aircraft no. 296 aborted for a JFS no start problem and was replaced by no. 314.

While pulling away from its target, aircraft no. 308 had an afterburner blowout (ABB) and the pilot jettisoned the plane's TERs and wing tanks to escape possible danger. Every F-16 dropped its bomb load and none sustained any battle damage.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 321

**MISSION III:** Enroute to the target, aircraft no. 317 had to abort because of a cabin pressure problem. The remaining eleven SCANG F-16's flew onto the target and dropped all of their bombs. None of the F-16's dropped their wing tanks and none had any battle damage.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 321

## DAY NINETEEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0630-1520 Hours  
No. Bombs Dropped: 62  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 1

Date: 4 February 1991  
FMC Rate: 92%  
No. Planes: 32  
No. Sorties: 32  
No. Code One: 24  
No. Code Two: 3  
No. Code Three: 5

### SYNOPSIS:

**MISSION I:** Each SCANG F-16 was loaded with two Mark-84 bombs for today's first mission. While warming-up, aircraft no. 304 aborted for an air data computer (ADC) problem and was replaced by no. 305. A/C no. 321 replaced no. 299 when it aborted for flight control problems.

All eight F-16's dropped their bombs on target and none dropped their wing tanks. None of the aircraft sustained any battle damage.

Lead Pilot: LTC Richard W. Noble                      A/C Tail No.: 532

**MISSION II:** Enroute to the target, aircraft no. 295 aborted because of a fuel imbalance problem. The seven remaining airplanes flew onto the target where they all dropped their bombs. None of the F-16's dropped their wing tanks and none sustained any battle damage.

Lead Pilot: Major Barry K. Coln                      A/C Tail No.: 291

**MISSION III:** In the midst of a sand storm blowing across the runway, eight SCANG F-16's took off for the third mission of the day. Each fighter carried two Mark-84 bombs and all aircraft expended their munitions over the targets. None of the F-16's dropped their wing tanks and none received any battle damage.

Lead Pilot: Capt. Joseph G. Weston                      A/C Tail No.: 532

**MISSION IV:** Loaded with two Mark-84 bombs apiece, eight SCANG F-16's were assigned to the last mission of the day. All aircraft dropped their bombs and none dropped their wing tanks. No F-16 experienced any battle damage.

Lead Pilot: Major George R. Jernigan                      A/C Tail No.: 321

**DAILY LOG:** Pilots returning from the third mission reported secondary explosions from the bunkers they were targeting. Returning from the last mission, pilots reported "lots of targets" including 60 tanks and 30 trucks over the target area.

An Air Force C-5A landed today bringing with it 19 SCANG personnel from the T-3 intermediate level package and cargo which included four AIS test stations for the avionics branch. The individuals included one MAM Analyst, five AGE, two ECS, seven PMEL and four AIS personnel.

CAM Sqn. reported having 25 days of Halon in stock for the F-16's.



## DAY TWENTY: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0605-1800 Hours  
No. Bombs Dropped: 78  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 5 February 1991  
FMC Rate: 92%  
No. Planes: 40  
No. Sorties: 40  
No. Code One: 30  
No. Code Two: 3  
No. Code Three: 7

### SYNOPSIS:

**MISSION I:** For the first time, four of the eight SCANG F-16's on this mission were loaded with CBU-52 bombs. CBU-52's are used primarily against tanks and ground forces. Each F-16 dropped its bombs and none dropped its wing tanks. No F-16 sustained any battle damage.

Lead Pilot: Major Timothy R. Rush                      A/C Tail No.: 292

**MISSION II:** With their bomb configuration the same as the first mission, eight SCANG F-16's dropped all of their munitions on the target area. None of the F-16's dropped its wing tanks and none suffered battle damage.

Lead Pilot: Capt John A. Richardson                      A/C Tail No.: 290

**MISSION III:** Upon returning from their mission, SCANG pilots reported destroying four to five trucks in the target area. The eight SCANG aircraft dropped all of their bombs and none dropped their wing tanks. No F-16 experienced any battle damage.

Lead Pilot: Major Waymond C. Nutt                      A/C Tail No.: 292

**MISSION IV:** For the first time SCANG's F-16's were armed with "Maverick" missiles for a mission. The missiles are for air to ground precise targeting and the pilots reported destroying five tanks and one truck in the target area. However, two of the missiles misfired and were brought back to base. None of the aircraft dropped their wing tanks and none received any battle damage.

Lead Pilot: Capt. Jeffrey C. Gurney                      A/C Tail No.: 302

**MISSION V:** SCANG pilots reported destroying "numerous vehicles" as all eight F-16's expended their ordinance. No F-16 dropped its wing tanks or had any battle damage.

Lead Pilot: Major Waymond C. Nutt                      A/C Tail No.: 290

**MISSION VI:** Using Maverick missiles for the second time today, the four SCANG F-16's reported firing eight missiles and destroying eight vehicles. The pilots also reported light AAA fire in the target area. No F-16 dropped its wing tanks or had any battle damage.

Lead Pilot: LTC George B. Patrick                      A/C Tail No.: 317

DAY TWENTY: COMBAT OPERATIONS continued

DAILY LOG: CAM Squadron has organized an hydrazine response team. It will respond to hydrazine accidents and is currently practicing on simulated emergencies. Lead by TSgt. James Griggs, the team is composed of personnel from the squadron's fuel shop.

At approximately 1215 hours, an emergency alarm was sounded in the SCANG aircraft parking area. The alert was triggered when Sgt. Charles Dixon discovered that a CBU-52 bomb's lanyard was pulled which activates its battery fusing device. The Explosive Ordinance Disposal (EOD) unit was called and the team removed the fuse from the bomb. However, by time word of the emergency had reached headquarters, the flight line security police were calling SCANG to request information about the "fire" in CAM Squadron's runway area.

False alarms were the order of the day as the security police were called to inspect a suspicious package received in the CAM Sqn. It seems the package was "buzzing" and bomb threats figured prominently in everyone's minds. However, the "bomb" proved to be an electric shaver that inadvertently switched on inside a "care package" sent to a CAM Squadron member who wishes to remain anonymous.

A real emergency occurred at 1550 hours when a C-130 reported that its number three engine was out on approach to the runway. Emergency personnel responded and met the aircraft on the taxi ramp after the plane landed. No further problems developed however, and the plane taxied to its parking ramp unassisted.

Aircraft no. 322 went into its phase inspection today.



## DAY TWENTY-ONE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0605-1755 Hours  
No. Bombs Dropped: 61  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 1  
No. Ground Aborts: 4  
No. Air Aborts: 2

Date: 6 February 1991  
FMC Rate: 92%  
No. Planes: 40  
No. Sorties: 38  
No. Code One: 24  
No. Code Two: 2  
No. Code Three: 4

### SYNOPSIS:

**MISSION I:** Pilots reported bad weather over the target area and aircraft no. 319 did not expend his one good Maverick missile because of the weather. No. 319 also reported one misfire of his missiles as did aircraft no. 321. The remaining F-16's expended their munitions. None of the aircraft dropped their wing tanks and none sustained any battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 305

**MISSION II:** Enroute to the target, aircraft no. 306 aborted because of an IFF pod problem and no. 314 aborted because of cabin pressure problems. The remaining F-16's dropped their ordinance reporting the destruction of three or four armored vehicles and encampment revetted. SCANG pilots also reported receiving, 'a lot of AAA fire' from one of the vehicles which was destroyed. No aircraft dropped its wing tanks or sustained battle damage.

Prior to takeoff, aircraft no. 292 aborted for an environmental control system failure and was replaced by no. 302. No. 304 aborted because of an ECM pod leak and was replaced by no. 312 which also aborted EOR, because of a pod leak. A/C no. 297 reported problems with its EPU but went on the mission anyway. The mission was accomplished by seven aircraft, one short of the full mission compliment.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 317

**MISSION III:** Because of bad weather, the eight SCANG F-16's on this mission had to drop their bomb load on alternate targets. All aircraft dropped their bombs and none dropped their wing tanks. No F-16 received any battle damage.

Lead Pilot: Major John N. Bellinger

A/C Tail No.: 293

**MISSION IV:** Bad weather again hampered SCANG's F-16's as two of the aircraft loaded with Maverick missiles were unable to expend their munitions. The two remaining F-16's dropped their Mark-84 bombs and none of the aircraft dropped their wing tanks. None of the planes experienced any battle damage.

Lead Pilot: Major Waymond C. Nutt

A/C Tail No.: 317

**MISSION V:** Returning from the mission, aircraft no. 292 reported hung bombs and aircraft no. 302 was noted to have a strafed panel. Six vehicles and three revettments were reported destroyed as the remaining seven F-16's dropped their bombs. None of the aircraft dropped their wing tanks.

Lead Pilot: Capt. Deane D. Pennington

A/C Tail No.: 294

DAY TWENTY-ONE: COMBAT OPERATIONS continued

MISSION VI: Prior to take off on the last mission of the day, aircraft no. 305 aborted EOR, because of an afterburner blowout. The remaining three F-16's flew onto the target where they dropped their Mark-84 bombs. None of the aircraft dropped their wing tanks and none suffered any battle damage.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 321



## DAY TWENTY-TWO: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0600-1750 Hours  
No. Bombs Dropped: 102  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 1

Date: 7 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 28  
No. Code Two: 2  
No. Code Three: 6

### SYNOPSIS:

**MISSION I:** Loaded with TER's containing three Mark-84 bombs each, eight SCANG F-16's were assigned to the first mission of the day. All aircraft dropped their bombs over the target area and none dropped their wing tanks. No F-16 had any battle damage.

Lead Pilot: Major Timothy R. Rush                      A/C Tail No.: 302

**MISSION II:** Prior to takeoff, lead aircraft no. 297 aborted because of a flight control battery problem and was replaced by no. 312. All of the aircraft expended their munitions and none dropped any wing tanks. No F-16 received any battle damage.

Lead Pilot: LTC Richard S. Cain                      A/C Tail No.: 312

**MISSION III:** SCANG pilots reported bombing buildings and vehicles inside military compounds while on this mission over Iraq. The aircraft carried two Mark-84 bombs apiece and all aircraft dropped their ordinance. No F-16 dropped its wing tanks or sustained battle damage.

Lead Pilot: Major Barry K. Coln                      A/C Tail No.: 304

**MISSION IV:** Upon returning from this mission, SCANG pilots reported destroying radio transmitting stations. All four aircraft on this mission dropped their two Mark-84 bombs and none dropped their wing tanks. No aircraft experienced any battle damage.

Lead Pilot: Capt. Kenneth R. March                      A/C Tail No.: 297

DAY TWENTY-TWO: COMBAT OPERATIONS continued

MISSION V: Shortly after takeoff, aircraft no. 319 aborted because of a chaff/flare problem. The remaining seven F-16's proceeded onto the target where they expended all munitions. SCANG pilots reported destroying some AAA batteries in the target area. None of the planes dropped their wing tanks or received any battle damage.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 304

MISSION VI: Returning after a long day of missions, SCANG pilots radioed in a request for "wheels to tent city." All four F-16's dropped their bombs and none dropped their wing tanks. No. F-16 sustained any battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 297

DAILY LOG: Aircraft no. 322 finished its phase inspection today and no. 302 began its phase inspection. CAM Sqn. is completing its combat phase inspections in 24 hours whereas under normal conditions the process takes five days. A combat phase inspection involves approximately 99% of a peace time inspection's procedures.

CAM Sqn. wags were recently heard to call the Iraqi Scud missile, "Saddam's Crazy Urban Detonator."



## DAY TWENTY-THREE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0600-1745 Hours  
No. Bombs Dropped: 104  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 3  
No. Air Aborts: 0

Date: 8 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 27  
No. Code Two: 18  
No. Code Three: 1

### SYNOPSIS:

**MISSION I:** SCANG pilots reported destroying approximately three buildings using either Mark-84 or CBU-52 bombs. Prior to takeoff, aircraft no. 293 aborted because of a fuel leak and was replaced by no. 317. All of the F-16's reported dropping their munitions and none reported dropping their wing tanks. No F-16 sustained any battle damage.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 299

**MISSION II:** Upon returning from this mission, the pilots reported destroying 15 vehicles. All of the SCANG aircraft dropped their bombs and none dropped their wing tanks. None of the aircraft had any battle damage.

Lead Pilot: Major Ricky A. Mantei

A/C Tail No.: 321

**MISSION III:** Loaded with two Mark-84 bombs each, eight SCANG F-16's dropped all of their ordinance over the target area. None of the aircraft dropped their wing tanks and none experienced any battle damage.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 299

**MISSION IV:** Prior to takeoff, lead aircraft no. 321 aborted because of a MAU-12 pylon problem and was replaced by no. 291. F-16 no. 292 aborted for a brake problem and was replaced by no. 297. All aircraft dropped their munitions and none dropped their wing tanks. No F-16 had any battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 291

**MISSION V:** SCANG pilots reported destroying multiple rebutted vehicles using the CBU-58 bombs loaded for this mission. The eight F-16's dropped all of their bombs and did not drop any wing tanks. No aircraft sustained any battle damage.

Lead Pilot: Capt. John A. Sizemore

A/C Tail No.: 299

**MISSION VI:** Again configured with CBU-58 bombs, four SCANG F-16's expended all of their munitions over the target area. No aircraft dropped its wing tanks and no aircraft had any battle damage.

Lead Pilot: Major Waymond C. Nutt

A/C Tail No.: 291

**DAILY LOG:** Aircraft no. 302 finished its phase inspection today and was returned to service.

At 1415 hours base security police notified all personnel that ordinance would again be exploded in the area and there was no need for alarm. This was the second day ordinance was exploded in the base area.

## DAY TWENTY-FOUR: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0600-1725 Hours  
No. Bombs Dropped: 110  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 0

Date: 9 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 22  
No. Code Two: 3  
No. Code Three: 11

### SYNOPSIS:

**MISSION I:** Returning from the first mission of the day, SCANG pilots reported "taking out" two gun emplacements. The aircraft were loaded with either two Mark-84 or CBU-52 bombs apiece and all munitions were expended over the target area. No aircraft dropped its wing tanks or sustained battle damage.

Lead Pilot: Major Richard M. Nauman

A/C Tail No.: 312

**MISSION II:** A fuel spill on the taxiway hampered the arming crew's operations but the problem was cleared up and all aircraft tookoff for this mission. During warm-up, aircraft no. 297 aborted for an EPU problem and was replaced by no. 305.

Returning from the mission, SCANG pilots reported destroying "numerous" armored personnel carriers (APCs) and other vehicles. Also, F-16 no. 304 reported a hung bomb and an in-flight emergency was declared. The aircraft landed without incident. No F-16 dropped its wing tanks and no F-16 experienced any battle damage.

Lead Pilot: Capt. Andre Kokal

A/C Tail No.: 317

**MISSION III:** An in-flight emergency condition was reported by aircraft no. 319 because of a hung bomb which occurred during its run over the target area. Fortunately, the F-16 landed without incident. SCANG pilots reported clear weather over the target as all of the remaining bombs were dropped. None of the F-16's dropped their wing tanks and none had any battle damage.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 312

**MISSION IV:** All four F-16's on this mission dropped their Mark-84 and CBU-52 bombs over the target area. No wing tanks were dropped by the aircraft and none of them received any battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 317

**MISSION V:** A building and multiple rebutted vehicles were reported destroyed on this mission by SCANG pilots. Carrying CBU-52 and TERs of Mark-82 bombs, lead aircraft no. 312 reported all munitions expended. None of the aircraft dropped their wing tanks and none suffered any battle damage.

Lead Pilot: Major Waymond C. Nutt

A/C Tail No.: 312

**MISSION VI:** Reporting that all ordinance was dropped, four SCANG F-16's returned from the last mission of the day. No aircraft dropped its wing tanks or sustained any battle damage.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 317

**DAILY LOG:** Due to the large tasking assignments in the munitions buildup area, individuals from the CAM Squadron's fuel shop were assigned to the munitions area. Five excess persons were reassigned and any excess people in the future will be assigned to areas needing assistance.



## DAY TWENTY-FIVE: COMBAT OPERATIONS

Place: Al Kharij AFB, Saudi Arabia  
Operation Hours: 0555-1750 Hours  
No. Bombs Dropped: 152  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 1

Date: 10 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 26  
No. Code Two: 4  
No. Code Three: 6

### SYNOPSIS:

**MISSION I:** Configured to carry TERs of Mark-82 or two Mark-84 bombs each, every F-16 on this mission dropped its bombs over the target area. No F-16 dropped its wing tanks or sustained battle damage.

During warm-up, aircraft no. 299 aborted for a JFS-no start and was replaced by no. 305.

Lead Pilot: Major Kenneth M. Jefferson      A/C Tail No.: 290

**MISSION II:** With clear weather over the target area, SCANG pilots reported attacking storage facilities and convoys of trucks inside Iraq. Loaded with TER mounted Mark-82 bombs, the four F-16's expended all munitions while not dropping any wing tanks. None of the aircraft had any battle damage.

Lead Pilot: Capt. Jeffrey C. Gurney      A/C Tail No.: 282

**MISSION III:** Enroute to the target, aircraft no. 297 aborted for an ECS problem but the seven remaining F-16's flew onto the target area. During the bombing run, aircraft no. 321 had a hung bomb problem and was forced to jettison the TER. No F-16 dropped its wing tanks or experienced any battle damage.

Lead Pilot: Capt. Joseph G. Weston      A/C Tail No.: 290

**MISSION IV:** All four SCANG F-16's expended their munitions over the target area on this fourth mission of the day. None of the F-16's dropped its wing tanks and none suffered any battle damage.

Lead Pilot: LTC Richard S. Cain      A/C Tail No.: 292

**MISSION V:** Loaded with two Mark-84 or TERs of Mark-82 bombs, the eight SCANG F-16's on this mission expended all munitions over the target area. No aircraft dropped its wing tanks and no aircraft experienced any battle damage.

During warm-up, F-16 no. 319 aborted because of a Backup Unit Control (BUC) and was replaced by no. 325.

Lead Pilot: Major Barry K. Coln      A/C Tail No.: 290

**MISSION VI:** Returning from this mission, SCANG pilots reported destroying an entire road section containing tractor truck tank vehicles. All four F-16's dropped their bombs and none of the four dropped their wing tanks. No aircraft sustained any battle damage.

Lead Pilot: Major George R. Jernigan      A/C Tail No.: 312

## DAY TWENTY-SIX: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0540-1825 Hours  
No. Bombs Dropped: 168  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 0

Date: 11 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 24  
No. Code Two: 3  
No. Code Three: 9

### SYNOPSIS:

**MISSION I:** Reporting good weather over the target area, the eight SCANG F-16's on this mission expended all of their Mark-84 or TER mounted Mark-82 bombs. No aircraft dropped its wing tanks or sustained battle damage. During warm-up, aircraft no. 532 aborted because of a Backup Unit Control (BUC) problem.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 317

**MISSION II:** Loaded with TER mounted Mark-82 bombs, the four F-16's on this mission expended all munitions over the target area. None of the aircraft dropped its wing tanks and none had any battle damage.

Lead Pilot: LTC Richard W. Noble

A/C Tail No.: 321

**MISSION III:** While returning to base an in-flight emergency was sounded for aircraft no. 322 which experienced electronic engine control problems. The F-16 returned safely from this mission and the emergency condition was rescinded. During the mission, all aircraft dropped their munitions on the target area and none dropped their wing tanks. No F-16 suffered any battle damage.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 317

**MISSION IV:** All four F-16's expended their bombs over the target area and none of the aircraft dropped its wing tanks. No aircraft experienced any battle damage.

Lead Pilot: Waymond C. Nutt

A/C Tail No.: 319

**MISSION V:** SCANG pilots reported bombing army barracks in Kuwait, as all eight F-16's on this mission expended their Mark-84 or TER's of Mark-82 bombs. No aircraft dropped its wing tanks or sustained any battle damage.

Lead Pilot: Major John N. Bellinger

A/C Tail No.: 317

**MISSION VI:** All ordinance was expended by the four SCANG F-16's on this last mission of the day. None of the aircraft dropped their wing tanks and none sustained any battle damage.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 321



## DAY TWENTY-SEVEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0530-1750 Hours  
No. Bombs Dropped: 157  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 4  
No. Air Aborts: 0

Date: 12 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 35  
No. Code One: 22  
No. Code Two: 1  
No. Code Three: 12

### SYNOPSIS:

**MISSION I:** Loaded with two Mark-84 or TERs of Mark-82 munitions, F-16 no. 299 one of eight SCANG aircraft on this mission, experienced a problem with a hung bomb over the target area. Since the ordinance was "secure" the pilot did not jettison the aircraft's TER and no in-flight emergency was called. The F-16 returned safely to base. No aircraft dropped its wing tanks or sustained any battle damage.

Lead Pilot: Capt. David P. Seawell

A/C Tail No.: 290

**MISSION II:** SCANG pilots reported destroying multiple revetted storage facilities with secondary explosions noted over the target area. During its bombing run, F-16 no. 304 experienced a hung bomb problem and the pilot jettisoned the aircraft's TER to rid it of the ordinance. None of the SCANG's F-16's dropped their wing tanks or had any battle damage.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 302

**MISSION III:** While warming up, aircraft no. 294 aborted for an Angle of Attack (AOA) indicator problem and was replaced by no. 321. Aircraft no. 292 also aborted for a pod leak and was replaced by no. 320. Prior to take off, aircraft no. 295 aborted EOR for spilling fuel on the runway. This prompted an emergency response from the base fire department which hosed the fuel from the pavement. The remaining seven SCANG F-16's proceeded onto the target area where they expended all munitions. No aircraft dropped its fuel tanks or experienced any battle damage.

Lead Pilot: Major Waymond C. Nutt

A/C Tail No.: 290

**MISSION IV:** Hung bombs seemed to be the order of the day, as F-16 no. 308 experienced one over the target area. Since the bomb was secure, no in-flight emergency was necessary and the aircraft returned safely. SCANG pilots reported destroying numerous revetted vehicles including three large trucks and one smaller vehicle. No wing tanks were dropped and no battle damage was sustained by any of the SCANG's F-16's.

Lead Pilot: Capt. John A. Sizemore

A/C Tail No.: 291

**MISSION V:** An in-flight emergency was sounded when aircraft no. 299 returned to base with a TER of hung Mark-82 bombs. The SCANG F-16 landed safely and the emergency was called off. All remaining ordinance was expended over the target area as SCANG pilots reported destroying "numerous revetted vehicles." No aircraft dropped its wing tanks or sustained any battle damage.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 290

**DAY TWENTY-SEVEN: COMBAT OPERATIONS continued**

**MISSION VI:** All munitions were expended over the target area by four SCANG F-16's on this last mission of the day. No F-16 dropped its wing tanks and no F-16 reported any battle damage.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 302

**DAILY LOG:** At approximately 1000 hours CAM Sqn. cleared the flight line area because of a dropped bomb. The area was evacuated for approximately 20 minutes while EOD and Safety personnel investigated and made the area secure by ensuring the bomb was still pinned.

LTC Edwin Fisher and Major Charles Savage met later with munitions supervisors to review safety procedures for handling munitions and to emphasize concern for the welfare of all personnel while handling live munitions. Although the base has experienced previous incidents of dropping bombs on the flight line, this was CAM Squadron's first incident.

CAM Sqn. continued to experience problems with aircraft no. 295 as it flew one mission this morning but aborted its second mission EOR because of a venting fuel problem. The aircraft has undergone extensive repairs and further maintenance overhaul may be needed to render the airplane serviceable.



## DAY TWENTY-EIGHT: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0550-1740 Hours  
No. Bombs Dropped: 130  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 0

Date: 13 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 25  
No. Code Two: 1  
No. Code Three: 10

### SYNOPSIS:

**MISSION I:** Clear weather prevailed over the target area as SCANG pilots reported destroying a large revetted storage facility. Secondary explosions were noted as munitions were expended with the exception of one hung CBU-58 bomb on aircraft no. 299. An in-flight emergency was sounded as the aircraft returned safely to base. None of the F-16's dropped their wing tanks or sustained battle damage during this mission.

Lead Pilot: Major John N. Bellinger

A/C Tail No.: 317

**MISSION II:** An in-flight emergency for hung bombs was sounded as aircraft nos. 299, 308 and 312 returned safely to base. All remaining munitions were expended over the target area, and no SCANG F-16 dropped its wing tanks or experienced any battle damage.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 302

**MISSION III:** SCANG pilots reported destroying a petroleum facility inside Iraq and noted radar indications of missile launches. No visual contact was made of the missiles. Prior to takeoff, aircraft no. 304 aborted because of flight control problems and was replaced by no. 312. All munitions were expended over the target and no wing tanks were dropped by SCANG's F-16's. None of the aircraft suffered any battle damage.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 317

**MISSION IV:** Prior to takeoff, aircraft no. 305 aborted because of a backup unit control problem and was replaced by no. 314. While over the target SCANG F-16 no. 320 had a bomb hang up and upon return an in-flight emergency was declared. The airplane landed without incident. All remaining munitions were expended over the target area and no wing tanks were dropped by SCANG's F-16's. None of the aircraft experienced any battle damage.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 302

**MISSION V:** While over the target, SCANG F-16 no. 299 had a bomb hang and was forced to jettison the aircraft's TER to release the ordinance. All eight aircraft on this mission dropped their bombs on a munitions storage facility. No F-16 dropped its wing tanks or suffered battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 317

**MISSION VI:** With clear weather over the target area, SCANG pilots expended their munitions on an ammunition storage area and communications tower. Pilots did report haze and smoke coming from the ground due to burning target areas. All bombs were dropped and none of the aircraft dropped their wing tanks. No battle damage was sustained by any of the four F-16's on this mission.

Lead Pilot: Major Kenneth M. Jefferson

A/C Tail No.: 302

## DAY TWENTY-NINE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0500-1345 Hours  
No. Bombs Dropped: 119  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 14 February 1991  
FMC Rate: 92%  
No. Planes: 28  
No. Sorties: 28  
No. Code One: 18  
No. Code Two: 5  
No. Code Three: 5

### SYNOPSIS:

**MISSION I:** SCANG pilots reported that the CBU-58 bombs carried on this mission did not detonate upon impact. Using air refueling to reach their targets, SCANG's aircraft bombed targets inside Iraq. The F-16's released all munitions over the target area and no F-16 dropped its wing tanks. No aircraft battle damage was reported.

Lead Pilot: Capt. Thorne S. Ambrose                      A/C Tail No.: 321

**MISSION II:** With clear weather over the target area, SCANG pilots reported destroying multiple trucks on the ground. All munitions were expended over the target area and no F-16 dropped its fuel tanks. No aircraft sustained any battle damage.

Lead Pilot: LTC Richard W. Noble                      A/C Tail No.: 321

**MISSION III:** Revetted vehicles were reported destroyed in the target area and SCANG pilots noted possible missile launches. While over the target area, aircraft no. 312 experienced hung bomb problems and as a consequence the pilot jettisoned the F-16's TERs. All bombs were dropped over the target area and no wing tanks were released. None of the aircraft reported any battle damage.

Lead Pilot: Capt. Jeffrey C. Gurney                      A/C Tail No.: 302

**MISSION IV:** These first four missions were accomplished through air refueling as SCANG pilots bombed targets deep inside Iraq. On this particular mission all munitions were expended and no wing tanks were dropped by the F-16's. No battle damage was reported.

Lead Pilot: Major Timothy R. Rush                      A/C Tail No.: 290

**MISSION V:** All bombs were dropped over the target area and no wing tanks were dropped by SCANG's four F-16's on this mission. None of the aircraft suffered any battle damage.

Lead Pilot: Capt. Thorne S. Ambrose                      A/C Tail No.: 321

**MISSION VI:** A large transport truck was reported destroyed on this mission as all four aircraft expended their munitions. No F-16 dropped its wing tanks or sustained any battle damage.

Lead Pilot: Major Barry K. Coln                      A/C Tail No.: 297

**MISSION VII:** A hung Mark-82 bomb aboard aircraft no. 302 created an in-flight emergency for this mission. With emergency personnel alerted and waiting on the runway, the SCANG F-16 returned safely to base. All remaining ordinance was dropped over the target area. None of the aircraft dropped their wing tanks and none received any battle damage.

Lead Pilot: Capt. John A. Richardson                      A/C Tail No.: 302



**DAY TWENTY-NINE: COMBAT OPERATIONS continued**

**DAILY LOG:** At approximately 1145 hours a red alert was sounded on base, condition alpha. It was the first red alert in almost two weeks and was caused by the Iraqis firing SCUD missiles at Riyadh which is about 100 kilometers southwest of Al Kharj AFB. After ten minutes the all clear was given.

## DAY THIRTY: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0550-1745 Hours  
No. Bombs Dropped: 70  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 5  
No. Air Aborts: 0

Date: 15 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 35  
No. Code One: 27  
No. Code Two: 1  
No. Code Three: 7

### SYNOPSIS:

**MISSION I:** Before taking off, SCANG's pilots were given a different target area to bomb which was identified as 30 to 40 occupied revettments located inside Iraq. Because of the distance involved, SCANG's F-16's used air refueling to reach the new target area. Over the target, all aircraft expended their Mark-84 munitions and none dropped their wing tanks. No battle damage was reported. Prior to takeoff, aircraft no. 292 aborted because of a battery problem and was replaced by no. 321.

Lead Pilot: Capt. David P. Seawell

A/C Tail No.: 302

**MISSION II:** Targeting artillery battalions in Iraq, this group of four F-16's dropped all of their Mark-84 bombs while not dropping any of their wing tanks. No battle damage was sustained by the aircraft on this mission.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 299

**MISSION III:** Tasked with the same targets as the previous mission, this flight of four SCANG F-16's were loaded with two Mark-84 bombs apiece. All munitions were expended over the target area and no wing tanks were dropped by the F-16's. No aircraft experienced any battle damage.

Lead Pilot: Capt. Deane C. Pennington

A/C Tail No.: 317

**MISSION IV:** During warm-up, aircraft no. 288 aborted because of a backup unit control problem and was replaced by no. 294. The four SCANG F-16's on this mission were tasked with bombing an Iraqi armored battalion inside Kuwait. All bombs were dropped and no wing tanks were dropped. No battle damage was reported to any aircraft.

Lead Pilot: Capt. Kenneth R. March

A/C Tail No.: 302

**MISSION V:** As with the previous mission, this flight of four SCANG F-16's were assigned to bomb an armored battalion in Kuwait. All Mark-84 bombs carried by the aircraft were released over the target area. No wing tanks were dropped and no battle damage was sustained by the F-16's.

Lead Pilot: LTC Richard W. Noble

A/C Tail No.: 532

**MISSION VI:** The lead pilot on this mission reported that aircraft no. 322 was unsuccessful in hitting the assigned target. All four F-16's were also tasked with bombing an Iraqi armored unit in Kuwait and all munitions were expended over the target area. No F-16 dropped its wing tanks and no F-16 reported any battle damage.

Lead Pilot: Major Ricky A. Mantei

A/C Tail No.: 317



**DAY THIRTY: COMBAT OPERATIONS continued**

**MISSION VII:** Tasked to bomb an armored unit in Iraq, this first flight of four SCANG F-16's expended all munitions over the target area. No F-16 dropped its wing tanks or had any battle damage.

Lead Pilot: Capt. Andrej Kokal

A/C Tail No.: 302

**MISSION VIII:** Prior to take off, aircraft no. 306 aborted because of an ECM pod IFF problem and was replaced by no. 312. This flight was assigned the same target as the group in Mission VII and the F-16's dropped all of their Mark-84 bombs over the target area. No aircraft dropped its wing tanks and no aircraft received any battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 299

**MISSION IX:** A nozzle position indicator problem caused aircraft no. 290 to abort EOR on this mission. It was too late to fly a replacement, so this mission was comprised of only three SCANG F-16's. Tasked to bomb an unidentified infantry brigade inside Iraq, all aircraft expended their munitions over the target area. No aircraft dropped their wing tanks or sustained any battle damage.

Lead Pilot: Major Ricky A. Mantei

A/C Tail No.: 317

**DAILY LOG:** CAM Squadron anticipates going over 1,000 sorties after tomorrow's missions are finished.

Aircraft no. 297 went into its phase inspection today and should be back in service within 48 hours.

News reports today indicated that Iraq is offering to withdraw from Kuwait. The United States is still awaiting the Iraqi government's proposal but is insistent that in order to cease hostilities Iraq must comply with the United Nations resolutions.

## DAY THIRTY-ONE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0500-1750 Hours  
No. Bombs Dropped: 168  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 3  
No. Air Aborts: 1

Date: 16 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 20  
No. Code Two: 6  
No. Code Three: 10

### SYNOPSIS:

**MISSION I:** Five vehicles, three tents and multiple bunkers were reported destroyed by the four SCANG F-16's on this first mission of the day. Loaded with two TERs of Mark-82 bombs each, all aircraft expended their munitions over the target area. No F-16 dropped its wing tanks or sustained any battle damage.

Prior to take off, aircraft no. 288 aborted because of a backup unit control problem and was replaced by no. 317.

Lead Pilot: Major George R. Jernigan A/C Tail No.: 322

**MISSION II:** On the day's second mission to Iraq, four F-16's loaded with TERs of Mark-82 bombs reported destroying ten buildings in a building compound. All bombs were dropped and no wing tanks were dropped over the target area by the SCANG aircraft. No battle damage to any F-16 was reported.

Lead Pilot: Capt. Deane D. Pennington A/C Tail No.: 312

**MISSION III:** Radar indications were noted by the SCANG F-16's on this mission as the aircraft bombed revetted storage areas inside Iraq. All Mark-84 bombs were released over the target area and no aircraft reported dropping its wing tanks. No aircraft experienced any battle damage.

Lead Pilot: Major John N. Bellinger A/C Tail No.: 306

**MISSION IV:** Being directed by AWACs to the target area, this flight of four SCANG F-16's expended all ordinance over the target area. No F-16 dropped its fuel tanks or received any battle damage.

Prior to take off, aircraft no. 305 aborted because of flight control problems and was replaced by no. 314.

Lead Pilot: Major Barry K. Coln A/C Tail No.: 322

**MISSION V:** Loaded with TERs of Mark-82 bombs, the four F-16's on this mission expended all ordinance over the target area. No wing tanks were dropped or battle damage sustained by any of the aircraft.

Lead Pilot: Capt. Joseph G. Weston A/C Tail No.: 299

**MISSION VI:** Striking targets inside Iraq, this group of four F-16's dropped their eight Mark-84 bombs over the target area. None of the aircraft dropped their wing tanks or suffered any battle damage.

Lead Pilot: LTC Richard S. Cain A/C Tail No.: 306

**MISSION VII:** Armed with TERs of Mark-82 bombs, this flight of four SCANG F-16's expended all munitions over the target area. No wing tanks were dropped or battle damage sustained by any aircraft.

Lead Pilot: Capt. Jeffrey C. Gurney A/C Tail No.: 322



**DAY THIRTY-ONE: COMBAT OPERATIONS continued**

**MISSION VIII:** SCANG pilots reported destroying two-to-three vehicle filled revettments on this mission. While over the target, F-16 no. 312 had a bomb hang and the pilot jettisoned the aircraft's TER to release the ordinance. Some AAA was reported in the area and missile radar was noted however, the pilots described the target area as having "no threats."

Enroute to the target area, aircraft no. 291 aborted because of an air conditioning problem and turned back from the mission. The remaining three F-16's expended all munitions over the target area. No wing tanks were dropped and no battle damage was reported to the F-16's.

During warm-up, aircraft no. 302 aborted because of a weapons release problem and was replaced by no. 314.

Lead Pilot: Major Kenneth M. Jefferson                      A/C Tail No.: 312

**MISSION IX:** On this last mission of the day, the four F-16's were loaded with two Mark-84 bombs apiece. This ordinance was expended over the target area and no aircraft dropped its wing tanks. No battle damage was reported to any aircraft.

Lead Pilot: Major Kenneth M. Jefferson                      A/C Tail No.: 306

**DAILY LOG:** On the fourth mission of the day, the South Carolina Air National Guard reached the 1,000th sortie plateau of Operation Desert Storm. F-16 no. 314 piloted by Capt. John A. Sizemore was the aircraft flown on this historic moment in the SCANG's 44 year history.

Upon returning to base, the SCANG fighter was met by CBS news anchorman Dan Rather who was filming stories for the television network's coverage of the Persian Gulf War. On hand to greet the returning aircraft were scores of CAM Squadron and operations personnel.

Aircraft no. 314 became the 1,000th sortie F-16 by default. F-16 no. 288 was originally scheduled to fly the 1,000th sortie but was replaced by aircraft no. 305. However, no. 305's opportunity was lost when it aborted on the ground because of a flight control problem. At that point, aircraft no. 314 replaced no. 305 and flew its way into South Carolina Air Guard history.

On another matter, at approximately 1040 hours, Al Kharj AFB was visited by congressmen from the U. S. House of Representatives' Appropriations Committee. The congressmen made a brief tour of the facility and departed without visiting the South Carolina Air Guard's area.

## DAY THIRTY-TWO: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0505-1750 Hours  
No. Bombs Dropped: 20  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 0

Date: 17 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 12  
No. Code One: 10  
No. Code Two: 0  
No. Code Three: 2

### SYNOPSIS:

**MISSION I:** Loaded with TERS of Mark-82 and CBU-58 bombs, this flight of four SCANG F-16's reported destroying aircraft revettments and parked vehicles. SCANG pilots reported "massive vehicles" in the target area as all munitions were expended. No wing tanks were dropped and no battle damage reported.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 291

**MISSION II:** Prior to take off, aircraft no. 297 aborted because of an UHF radio problem and was replaced by no. 320. Operations informed this flight that the "killing box" was expanded however, no bombs were dropped because of bad weather over the target area. No wing tanks were dropped or battle damage sustained by any of the SCANG's F-16's on this mission.

Lead Pilot: Capt. Thorne S. Ambrose

A/C Tail No.: 288

**MISSION III:** As with Mission II, this mission encountered bad weather and turned back from the target area. No bombs or wing tanks were dropped and no battle damage reported.

Lead Pilot: Capt. Deane D. Pennington

A/C Tail No.: 314

**DAILY LOG:** Because of bad weather over the target area, the missions for the remainder of the day were cancelled. Missions II and III reported weather so bad as to hamper mid air refueling operations. Only the four F-16's in Mission I were able to reach their target area and drop their bombs.

Aircraft no. 297 finished its phase inspection today and aircraft no. 306 began its phase inspection.



## DAY THIRTY-THREE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0555-1310 Hours  
No. Bombs Dropped: 77  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 0

Date: 18 February 1991  
FMC Rate: 92%  
No. Planes: 28  
No. Sorties: 28  
No. Code One: 23  
No. Code Two: 0  
No. Code Three: 5

### SYNOPSIS:

**MISSION I:** Loaded with two Mark-84 or TERs of CBU-58 bombs, this first flight of four SCANG F-16's reported destroying two vehicles and a revettment. SCANG pilots reported that seven of the CBU-58 bombs did not explode on impact. No wing tanks were dropped and no battle damage was reported.

Prior to takeoff, aircraft no. 302 aborted because of a defective battery start light and was replaced by no. 308.

Lead Pilot: Capt. Kenneth R. March

A/C Tail No.: 293

**MISSION II:** Four revettments were reported destroyed on this mission as all four SCANG aircraft dropped their Mark-84 bombs. No aircraft dropped its wing tanks or suffered any battle damage.

Lead Pilot: Major Richard A. Finke

A/C Tail No.: 291

**MISSION III:** Five bunkers were bombed with one secondary explosion observed by the SCANG F-16 pilots on this mission. All eight Mark-84 bombs were dropped and no battle damage experienced by the F-16's. No aircraft dropped its wing tanks.

Lead Pilot: Major Ricky A. Mantei

A/C Tail No.: 288

**MISSION IV:** SCANG pilots did not observe any battle damage on this fourth mission of the morning. Radar "threats" were noted but no missiles were seen. The pilots reported that the weather was clearing rapidly in the target area. All munitions were expended and no wing tanks were dropped. No battle damage occurred to any F-16 on this mission.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 314

**MISSION V:** Over the target area, aircraft no. 302 experienced a problem with one TER of its bombs. Although the bombs were secure, an in-flight emergency was called and safety personnel waited on the runway for the returning F-16. The F-16 landed without incident and the IFE was terminated. All other ordinance was expended over the target area and no aircraft dropped its wing tanks. No battle damage was reported.

Lead Pilot: LTC Richard W. Noble

A/C Tail No.: 293

**MISSION VI:** Numerous vehicles and three-to-four revettments south of the vehicle storage area were reported destroyed on this mission. Dropping Mark-84 bombs, the four SCANG F-16's expended all munitions over the target area. No wing tanks were dropped or battle damage sustained by any of the aircraft.

Lead Pilot: Capt. Jeffrey C. Gurney

A/C Tail No.: 291

**DAY THIRTY-THREE: COMBAT OPERATIONS continued**

**MISSION VII:** Again, numerous vehicles were reported destroyed as all bombs were dropped over the target area. No aircraft dropped its wing tanks or had any battle damage.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 288

**DAILY LOG:** Those individuals returned to the United States as nonessential personnel have received assignments at various bases around the country. Individuals have been assigned to Dover AFB, Delaware, England AFB, Louisiana, Holmstead AFB, Florida, Myrtle Beach AFB, S. C. and Shaw AFB, S. C. Those assigned to Dover AFB will work in the mortuary affairs section of the base. The others have been assigned to areas commensurate with their AFSC's.

To celebrate its 1,000th combat sortie, the 169th CAM Squadron held a cookout at the All Ranks Club from 1600 to 1800 hours. The menu included hamburgers and hot dogs along with soft drinks and "near" beer.



## DAY THIRTY-FOUR: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0600-1820 Hours  
No. Bombs Dropped: 104  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 0

Date: 19 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 35  
No. Code One: 28  
No. Code Two: 6  
No. Code Three: 1

### SYNOPSIS:

**MISSION I:** Configured with TERs of Mark-82 bombs, the four SCANG F-16's on this mission expended all munitions over the target area. Pilots reported hitting a communications site destroying one building, 12 revettments, vehicles and personnel. Although the aircraft encountered some AAA, no battle damage to the F-16's was reported. None of the aircraft dropped their wing tanks.

Lead Pilot: Major George R. Jernigan A/C Tail No.: 314

**MISSION II:** Artillery guns were the targets for this flight of four SCANG F-16's as all ordinance was expended over the target area. Again some AAA was encountered but no battle damage occurred to the aircraft. No F-16 dropped its wing tanks.

Lead Pilot: Major John N. Bellinger A/C Tail No.: 319

**MISSION III:** Two .85mm artillery guns were destroyed as the four F-16's on this mission dropped all eight of their Mark-84 bombs on target. No wing tanks were dropped and although the pilots reported the weather clearing over the target area, no AAA was encountered. No battle damage was reported to the aircraft.

Lead Pilot: Capt. John A. Richardson A/C Tail No.: 291

**MISSION IV:** Attacking targets inside Kuwait, the four SCANG F-16's on this mission reported destroying five occupied revettments and four cylinders inside a chemical storage facility. AAA fire was detected however, no aircraft sustained any battle damage and no aircraft dropped its wing tanks on this mission.

Lead Pilot: LTC Richard W. Noble A/C Tail No.: 314

**MISSION V:** Four AAA guns were reported destroyed as four SCANG F-16's attacked AAA emplacements inside Kuwait. All aircraft dropped their Mark-84 bombs and no aircraft dropped wing tanks. No battle damage was reported to any of the F-16's.

Lead Pilot: Major Timothy R. Rush A/C Tail No.: 319

**MISSION VI:** Multiple revetted artillery pieces were bombed on this mission flown by four SCANG F-16's. No AAA threat was noted and all munitions were expended over the target area. No F-16 dropped its wing tanks or had any battle damage.

Lead Pilot: Major Kenneth M. Jefferson A/C Tail No.: 291

**MISSION VII:** This target required SCANG's pilots to fly their longest mission of the war, as six F-16's bombed an airfield inside Iraq. All ordinance was dropped over the target area and no wing tanks were dropped. No aircraft reported any battle damage.

Lead Pilot: Capt. Joseph G. Weston A/C Tail No.: 319

DAY THIRTY-FOUR: COMBAT OPERATIONS continued

MISSION VIII: SCANG pilots reported hitting their designated as well as secondary targets on this last mission of the day. Three revetted areas were bombed, as well as a large compound approximately one kilometer in size southeast of the designated target area. All munitions were expended and no aircraft dropped its wing tanks. None of the six F-16's reported any battle damage.

Lead Pilot: Capt. Jeffrey C. Gurney

A/C Tail No.: 291

DAILY LOG: Aircraft no. 306 completed its phase inspection and no. 295 began its phase inspection.



## DAY THIRTY-FIVE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0605-1745 Hours  
No. Bombs Dropped: 40  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 1  
No. Air Aborts: 0

Date: 20 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 16  
No. Code One: 14  
No. Code Two: 1  
No. Code Three: 1

### SYNOPSIS:

**MISSION I:** Although this flight of four SCANG F-16's got off the ground, the aircraft returned to base without reaching the target. Due to bad weather over the target area, the mission was cancelled. As the F-16's returned to base, a strong wind, kicking up lots of dust was blowing across the air field.

Lead Pilot: LTC Richard S. Cain

A/C Tail No.: 306

**MISSION II:** This mission was cancelled due to bad weather over the target area. The aircraft did start their engines and taxi but were called back when the mission was cancelled.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 291

**MISSION III:** This mission was cancelled because of bad weather over the target area.

Lead Pilot: Major Andrej Kokal

A/C Tail No.: 319

**MISSION IV:** Cancelled due to bad weather over the target and sand storm on the base.

**MISSION V:** Same as above.

**MISSION VI:** Same as above.

**MISSION VII:** With clearing weather over the air base, SCANG pilots flew the last three scheduled missions. On this flight the SCANG pilots were unable to detect any results of the bombing run. All aircraft dropped their bombs and no aircraft dropped its wing tanks. No F-16 reported any battle damage. Pilots also reported no threats in the target area.

Prior to take off, aircraft no. 288 aborted because of a backup unit control problem and was replaced by no. 317.

Lead Pilot: Major Richard M. Nauman

A/C Tail No.: 306

**MISSION VIII:** The four F-16's on this flight struck an army encampment destroying seven vehicles and two revettments. With weather clearing over the target area, all aircraft expended their munitions and none dropped their wing tanks. No aircraft sustained any battle damage.

Lead Pilot: Capt. Kenneth R. March

A/C Tail No.: 291

**DAY THIRTY-FIVE: COMBAT OPERATIONS continued**

**MISSION IX:** While detecting radar 'threats' only, the four F-16's on this flight reported destroying several revettments and a moving vehicle. They also reported that weather was improving over the target area and that aircraft no. 322's Mark-84 bomb fell 1,000 meters too long. No aircraft dropped its wing tanks or reported any battle damage.

Lead Pilot: Capt. Deane D. Pennington

A/C Tail No.: 319

**DAILY LOG:** Bad weather over the target area cancelled three missions during mid morning. While bad weather hampered operations, Al Kharj AFB experienced a major sand storm with gusts of wind varying between 20 to 30 knots. Around 1500 hours the storm passed over the base and SCANG flew its last three scheduled missions of the day.



## DAY THIRTY-SIX: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0620-1750 Hours  
No. Bombs Dropped: 117  
No. Wing Tanks Dropped: 1  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 2

Date: 21 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 28  
No. Code Two: 3  
No. Code Three: 5

### SYNOPSIS:

**MISSION I:** Pilots on this mission were assigned to bomb a mechanized infantry division however, because of weather no hits could be sighted on the target. While over the target, aircraft no. 317 had a bomb hang and returned to base under an in-flight emergency condition. The aircraft landed safely and no aircraft reported any battle damage. No F-16 dropped its wing tanks.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 306

**MISSION II:** Prior to take off, aircraft no. 288 aborted because of a backup unit control problem and was replaced by no. 319. No. 319 then aborted because of a UHF radio problem and was replaced by no. 304. Troubles continued on this mission as aircraft no. 314's engine flamed out over the target area. Using his backup control, the pilot restarted the F-16 and jettisoned his bombs and one wing tank. The other wing tank would not jettison.

Accompanied by aircraft no. 321, the pilot flew back into Saudi Arabia and made an emergency landing at King Khalid Military City Air Base. The remaining two SCANG aircraft continued the mission and reported destroying a north-south directional pontoon bridge using their Mark-84 bombs. No aircraft dropped its wing tanks or sustained any battle damage.

Lead Pilot: LTC Richard S. Cain

A/C Tail No.: 321

**MISSION III:** A troop convoy of 25 "wheeled" vehicles was attacked by this group of four SCANG F-16's. All Mark-84 ordinance was expended and no aircraft dropped its wing tanks. No battle damage was reported to any F-16.

Lead Pilot: LTC Richard W. Noble

A/C Tail No.: 291

**MISSION IV:** With broken cloud cover at 8,000 feet this group of four SCANG F-16's reported hitting numerous revetted vehicles and vehicles in the open. Using TERS of Mark-82 bombs, SCANG pilots reported an estimated six vehicles destroyed on the ground. All munitions were expended and no aircraft dropped its wing tanks. No battle damage was reported to any F-16.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 306

**MISSION V:** Moving trucks and revetted armor vehicles were bombed by this group of four SCANG F-16's using Mark-84 bombs. Radar was detected over the target area but no threats were noted. All ordinance was expended and no aircraft dropped its wing tanks. No aircraft suffered any battle damage.

Lead Pilot: Major George B. Jernigan

A/C Tail No.: 321

**DAY THIRTY-SIX: COMBAT OPERATIONS continued**

**MISSION VI:** Numerous revetted vehicles were bombed by the four SCANG F-16's on this mission. At least eight vehicles were believed destroyed and one revettment was seen by the pilots to have a secondary explosion. This group also reported overcast weather at 8,000 feet but that the target was "workable". No wing tanks were dropped or battle damage reported by any of the aircraft.

Lead Pilot: Capt. Deane D. Pennington

A/C Tail No.: 291

**MISSION VII:** Two artillery revettments destroyed and numerous vehicles damaged were the results of this bombing run by four SCANG F-16's. Loaded with TERs of Mark-82 bombs, the aircraft expended all munitions over the target area. None of the aircraft dropped their wing tanks or suffered any battle damage.

Lead Pilot: Major Waymond C. Nutt

A/C Tail No.: 306

**MISSION VIII:** With clear weather over the target area, four SCANG F-16's dropped eight Mark-84 bombs on numerous revettments. All ordnance was expended over the target area and no aircraft dropped its wing tanks. No F-16 received any battle damage.

Lead Pilot: Capt. Jeffrey C. Gurney

A/C Tail No.: 321

**MISSION IX:** Although there was haze in the vicinity, the four SCANG F-16's on this flight dropped all eight of their Mark-84 bombs on the target area. None of the aircraft dropped their wing tanks and none received any battle damage.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 291

**DAILY LOG:** Haze covered various parts of the air base today as sand was kicked up by wind. Today's sand storms were not as severe as yesterday's storm fueled by 20 to 30 knot winds.

Aircraft no. 325 finished its phase inspection today. No F-16 is currently undergoing a phase inspection.



## DAY THIRTY-SEVEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0615-1740 Hours  
No. Bombs Dropped: 101  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 2  
No. Air Aborts: 1

Date: 22 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 28  
No. Code Two: 4  
No. Code Three: 4

### SYNOPSIS:

**MISSION I:** Loaded with two Mark-84 bombs apiece, the four SCANG F-16's on this flight destroyed two artillery pieces and four armored personnel carriers (APC's). All bombs were dropped and no aircraft dropped its wing tanks. No battle damage was reported to any F-16.

Lead Pilot: Major Ricky A. Mantei A/C Tail No.: 291

**MISSION II:** Six revetted vehicles were reported destroyed by this second flight of SCANG F-16's. All munitions were expended and no wing tanks were dropped by the aircraft. No F-16 suffered any battle damage.

Lead Pilot: Capt. John A. Sizemore A/C Tail No.: 314

**MISSION III:** Hazy weather was reported over the target area, as all four F-16's on this mission released their TERs of Mark-82 bombs. Three vehicles and a revettment were destroyed, and one small building was damaged. No wing tanks were dropped and no battle damage was sustained by any of the aircraft.

Lead Pilot: Capt. John A. Richardson A/C Tail No.: 290

**MISSION IV:** Reporting that four vehicles, a revettment and two moving vehicles were destroyed, the four SCANG F-16's on this flight dropped all eight Mark-84 bombs on the target area. No wing tanks were dropped and no battle damage was experienced by the aircraft.

Lead Pilot: Major Kenneth M. Jefferson A/C Tail No.: 291

**MISSION V:** Numerous revetted vehicles were bombed by the four F-16's on this mission with eight revettments reported destroyed. All munitions were expended and no wing tanks were dropped by the SCANG aircraft. No battle damage was reported. Prior to take off, aircraft no. 314 aborted because of a faulty left brake and was replaced by no. 325.

Lead Pilot: Major John N. Bellinger A/C Tail No.: 314

**MISSION VI:** Nine revetted artillery pieces were destroyed as SCANG F-16 pilots dropped Mark-82 bombs and fired the aircrafts' gatling guns over the target area. No wing tanks were dropped and no battle damage sustained by any aircraft.

Lead Pilot: Major John N. Bellinger A/C Tail No.: 290

**MISSION VII:** Carrying Maverick missiles and Mark-84 bombs, SCANG pilots reported destroying revetted vehicles and vehicles in the open. The pilots also reported that some of the revettments were possible fuel storage sites. All four F-16's expended their ordinance and none of the aircraft dropped their wing tanks. No battle damage was reported.

Lead Pilot: Major George R. Jernigan A/C Tail No.: 288

**DAY THIRTY-SEVEN: COMBAT OPERATIONS continued**

**MISSION VIII:** Enroute to the target, aircraft no. 319 aborted because of an air conditioning problem. The three remaining SCANG F-16's loaded with Mark-84 bombs proceeded onto the target area. SCANG pilots reported bombing a storage site with many buildings being hit. The pilots also reported that many buildings remained. No aircraft dropped its wing tanks or sustained battle damage.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 314

**MISSION IX:** Numerous revettments were struck as the four SCANG aircraft on this mission dropped seven of their eight Mark-84 bombs. While over the target, aircraft no. 320 had a bomb hang and returned to base under an in-flight emergency condition. The emergency was cancelled when the airplane returned safely to base. Prior to take off, F-16 no. 290 aborted because of a backup unit control problem and was replaced by no. 306. None of the F-16's dropped their wing tanks or experienced any battle damage.

Lead Pilot: Capt. David P. Seawell

A/C Tail No.: 290

**DAILY LOG:** Aircraft no. 314, forced down by an engine flame out, left King Khalid Military City Air Base at approximately 1730 hours to fly back to Al Kharj AFB yesterday. The F-16's engine was replaced and the plane made serviceable by Shaw AFB personnel stationed at the forward operating location of King Khalid Air Base. When the SCANG F-16 departed, the base was under a SCUD missile alert and Condition Black.

Aircraft no. 295 began its phase inspection today.



## DAY THIRTY-EIGHT: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0610-1745 Hours  
No. Bombs Dropped: 72  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 23 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 27  
No. Code Two: 4  
No. Code Three: 5

### SYNOPSIS:

**MISSION I:** Configured with two Mark-84 bombs each, the four SCANG F-16's on this mission expended the munitions destroying six to eight tractor trailers. No wing tanks were dropped or battle damage sustained by any of the aircraft.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 317

**MISSION II:** One armored vehicle was destroyed and two damaged, as the four F-16's on this flight dropped their eight Mark-84 bombs. None of the aircraft dropped their wing tanks and none suffered any battle damage.

Lead Pilot: Major Richard M. Ball

A/C Tail No.: 290

**MISSION III:** Dropping eight Mark-84 bombs over the target area, SCANG pilots reported destroying three tractor trailers and two vehicles. All ordinance was dropped and no F-16 dropped its wing tanks. No battle damage was suffered by any of the aircraft.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 299

**MISSION IV:** Numerous vehicles and trucks both revetted and in the open where sighted by the SCANG pilots on this mission. Five vehicles and one tractor trailer were reported destroyed as the aircraft expended all munitions including F-16's nos. 317 and 325 which fired their gatling guns. No aircraft dropped its wing tanks or suffered battle damage.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 317

**MISSION V:** With good weather over the target area, the F-16's dropped their Mark-84 bombs on revetted vehicles. No aircraft dropped its wing tanks or sustained any battle damage.

Lead Pilot: Major Richard M. Nauman

A/C Tail No.: 290

**MISSION VI:** Occupied and unoccupied revettments were bombed by the four SCANG F-16's on this flight. All ordinance was expended and no aircraft dropped its wing tanks. No battle damage was reported to any F-16.

Lead Pilot: LTC Richard W. Noble

A/C Tail No.: 299

**MISSION VII:** Good weather again prevailed over the target as four SCANG F-16's on this mission bombed multiple revettments with Mark-84 bombs. No wing tanks were dropped or battle damage sustained by any of the aircraft.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 308

**DAY THIRTY-EIGHT: COMBAT OPERATIONS continued**

**MISSION VIII:** While over the target area, SCANG pilots encountered SAM missile launches which inflicted no battle damage. One artillery site, four trucks were destroyed, and one camouflaged bunker was hit. No wing tanks were dropped however, aircraft no. 290 had a Maverick missile hang and the pilot was forced to jettison it.

Lead Pilot: Capt. Deane D. Pennington                      A/C Tail No.: 290

**MISSION IX:** Two tanks, three trucks and one radar van were reported destroyed by the four aircraft on this last mission of the day. All munitions were expended and no wing tanks were dropped by the SCANG F-16's. None of the aircraft sustained any battle damage.

Lead Pilot: Major Waymond C. Nutt                      A/C Tail No.: 299

**DAILY LOG:** Aircraft no. 295 finished its phase inspection today.



## DAY THIRTY-NINE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0535-1530 Hours  
No. Bombs Dropped: 62  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 1

Date: 24 February 1991  
FMC Rate: 96%  
No. Planes: 32  
No. Sorties: 32  
No. Code One: 18  
No. Code Two: 4  
No. Code Three: 10

### SYNOPSIS:

**MISSION I:** Detecting SAM radar threats while over the target area, the four SCANG F-16's on this mission bombed Iraqi air base hangers. SCANG pilots reported activity in the hangers as they released their Mark-84 bombs on the targets. No F-16 dropped its wing tanks and no F-16 reported any battle damage.

Lead Pilot: Major Andrej Kokal

A/C Tail No.: 288

**MISSION II:** With excellent weather over the target area, SCANG pilots reported destroying eight vehicles. All eight Mark-84 bombs were expended by the four F-16's on this flight. No wing tanks were dropped or battle damage sustained by any aircraft.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 297

**MISSION III:** SCANG pilots reported destroying two aircraft hangers and dropping bombs on the apron in front of other hangers at an Iraqi air base. Four to six armored vehicles were sighted on a road south of the target area and reported to the base intelligence section. All eight Mark-84 bombs were dropped on the target area and no wing tanks were dropped by the four F-16's on this mission. No F-16 experienced any battle damage.

Lead Pilot: Capt. David P. Seawell

A/C Tail No.: 290

**MISSION IV:** All four SCANG F-16's on this flight expended their eight Mark-84 bombs over the target area. No wing tanks were dropped and no battle damage received by any aircraft.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 321

**MISSION V:** Four buildings were destroyed and one damaged as SCANG F-16's attacked Al Salmam Air Base inside Iraq. Using Mark-84 bombs, the four F-16's expended all munitions over the target while detecting radar threats. No F-16 dropped its wing tanks and no F-16 suffered any battle damage on this mission.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 305

**MISSION VI:** Six bunker areas were destroyed on this mission however, the SCANG pilots did not detect any secondary explosions. All Mark-84 bombs were dropped over the target area and not one aircraft dropped its wing tanks. No battle damage was reported.

Lead Pilot: Capt. Kenneth R. March

A/C Tail No.: 297

**DAY THIRTY-NINE: COMBAT OPERATIONS continued**

**MISSION VII:** SCANG pilots reported bombing an industrial plant identified either as a concrete or chemical production factory. Using Mark-84 bombs, all four F-16's expended their munitions over the target while not dropping any wing tanks. No battle damage was sustained by any aircraft.

Prior to reaching its target, aircraft no. 304 experienced a jet fuel system door problem and was forced to abort the mission.

Lead Pilot: Capt. John A. Richardson                      A/C Tail No.: 306

**MISSION VIII:** Multiple revetted track vehicles were reported destroyed by the four SCANG pilots on this last mission of the day. No wing tanks were dropped and no battle damage reported to any F-16.

Lead Pilot: Capt. Thorne S. Ambrose                      A/C Tail No.: 321

**DAILY LOG:** SCANG was tasked with its longest missions of the war today. The three hour flying time sorties were suppose to bring the SCANG F-16's within 60 miles of Bagdadh, capitol of Iraq. However, bad weather over the target area caused the aircraft to be redirected by AWACS to secondary targets which included Iraq's Al Salmam Air Base. The long distance missions required the SCANG F-16's to be air refueled in order to reach their targets. Continuous bad weather caused all of today's missions be directed by AWACS aircraft to secondary targets.



## DAY FORTY: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0610-1755 Hours  
No. Bombs Dropped: 84  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 6  
No. Air Aborts: 1

Date: 25 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 34  
No. Code One: 23  
No. Code Two: 2  
No. Code Three: 9

### SYNOPSIS:

**MISSION I:** On this first mission, SCANG pilots spotted numerous revetted tanks positioned in a defensive posture. Releasing their TERs of Mark-82 bombs, the four F-16's damaged seven revettments. There was cloud cover over the target between 12,000 to 14,000 feet and no threats were detected. No F-16 dropped its wing tanks and no F-16 sustained any battle damage. While over the target area, aircraft no. 297 had a bomb hang and was forced to release the TER containing the ordnance over a jettison area.

Lead Pilot: LTC Richard W. Noble

A/C Tail No.: 291

**MISSION II:** Although this flight's pilots reported destroying one tank and one truck, they also noted that there was very little movement in the target area and no threats. All Mark-84 bombs were dropped and no aircraft dropped its wing tanks. No battle damage was reported to any aircraft.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 322

**MISSION III:** Prior to take off, aircraft no. 314 aborted because of canopy problems and was replaced by no. 296. The four F-16's on this mission reported dropping their Mark-82 bombs on revetted vehicles. During the bomb run, F-16 no. 312 had to jettison its TER. No F-16 dropped its wing tanks or had any battle damage.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 306

**MISSION IV:** SCANG pilots reported destroying a microwave tower and a communications van using Mark-84 bombs. The four F-16's on this mission expended all munitions and none of the four dropped their wing tanks. No aircraft received any battle damage.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 291

**MISSION V:** This group of four F-16's did not expend any munitions as the aircraft were reassigned to combat air patrol (CAP) duty protecting ground troops. Redirected from its primary target by AWACS, the SCANG pilots flew CAPs for approximately 25 minutes. Using air refueling to cover the newly assigned target, the F-16's returned to base one hour past their scheduled landing time. The four aircraft did not drop their wing tanks or suffer battle damage.

Lead Pilot: Major Richard M. Nauman

A/C Tail No.: 322

**MISSION VI:** For the first time, naval targets were hit as the SCANG pilots on this mission reported destroying two ships. The F-16's encountered both SAMs and AAA over the target area while dropping their chaff and flare to foil the SAM missiles. SCANG pilots reported the target area was ripe for a B-52 bomber strike. No wing tanks were dropped and no battle damage was sustained by any of the F-16's.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 320

**DAY FORTY: COMBAT OPERATIONS continued**

**MISSION VII:** Aborts plagued this mission as prior to take off, aircraft no. 317 had a failed FCC and was replaced by no. 297. Enroute to the target, aircraft no. 319 aborted the mission because of an ECM pod failure. The remaining three F-16's on this flight dropped their Mark-84 bombs from 40,000 feet preventing the pilots from observing any damage inflicted on the enemy. No F-16 dropped its wing tanks or sustained any battle damage.

Lead Pilot: Major John N. Bellinger

A/C Tail No.: 297

**MISSION VIII:** Because of bad weather, no aircraft expended its munitions on this mission and the three F-16's making this flight returned with their Mark-84 bombs to base. Prior to take off, aircraft no. 290 aborted because of a right leading edge flap problem and was replaced by no. 291. While on the taxi way, F-16 no. 302 aborted EOR because of throttle friction problems. No wing tanks were dropped and no battle damage received by any F-16.

Lead Pilot: LTC Richard S. Cain

A/C Tail No.: 291

**MISSION IX:** Another EOR abort occurred during this mission as F-16 no. 292 experienced ECM pod problems. In addition, aircraft no. 312 aborted because of problems with a wing tank pins and was replaced by no. 322. None of the three remaining aircraft on this mission dropped their wing tanks or experienced any battle damage. All munitions were expended over the target area.

Lead Pilot: Major Barry K. Coln

A/C Tail No.: 306

**DAILY LOG:** At 1215 hours, CAM Squadron had to evacuate the flight line as a bomb fuse problem occurred in the New York Air Guard area. The alarm was called off without incident.

Sand storms kicked up around the air base with periodic gusts of wind blowing across the runway and flight line.



## DAY FORTY-ONE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0605-1915 Hours  
No. Bombs Dropped: 88  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 3  
No. Air Aborts: 0

Date: 26 February 1991  
FMC Rate: 92%  
No. Planes: 36  
No. Sorties: 36  
No. Code One: 26  
No. Code Two: 1  
No. Code Three: 9

### SYNOPSIS:

**MISSION I:** SCANG pilots reported dropping their Mark-84 bombs from 25,000 feet destroying one truck and hitting 20 vehicles moving in a northwest direction. All munitions were expended over the target area and no F-16 dropped its wing tanks. No battle damage was reported. Prior to take off, aircraft no. 297 aborted because of an EPU problem and was replaced by no. 322.

Lead Pilot: Major Ricky A. Mantei

A/C Tail No.: 322

**MISSION II:** Weather was so bad over the target area, SCANG pilots were unable to determine what their Mark-84 bombs struck. All ordinance was dropped on an estimated 50 trucks and no wing tanks were dropped by the F-16's. No battle damage was sustained by any aircraft.

Lead Pilot: Major Kenneth M. Jefferson

A/C Tail No.: 312

**MISSION III:** Since cloud cover obscured the target area to 33,000 feet, the four F-16's on this mission used radar to drop their TER loaded Mark-82 bombs on an artillery battery. All bombs were dropped and no wing tanks were dropped by the F-16's. No aircraft reported any battle damage.

Lead Pilot: LTC John W. Marshall

A/C Tail No.: 288

**MISSION IV:** Because of bad weather over the target area, the four F-16's did not drop their bombs. No wing tanks were dropped and no battle damage was sustained by any aircraft.

Lead Pilot: LTC George B. Patrick

A/C Tail No.: 297

**MISSION V:** Loaded with two Mark-84 bombs each, all four F-16's on this mission expended their munitions over the target area. No dropped wing tanks or battle damage was reported by any pilot.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 312

**MISSION VI:** With weather overcast to 35,000 feet, SCANG pilots had difficulty reporting any battle damage estimates (BDE). The pilots detected no threats in the target area as they released all eight Mark-84 bombs. No wing tanks were dropped or battle damage sustained by any aircraft.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 288

**MISSION VII:** Four revetted tanks were destroyed and one damaged on this mission as four SCANG F-16's dropped Mark-84 bombs and fired the gatling gun in the target area. SCANG pilots reported numerous enemy tanks in the vicinity and that "friendlies" were three miles to the south. Weather was reported to be clear to 25,000 feet. No aircraft dropped its wing tanks or suffered battle damage.

Lead Pilot: Capt. Kenneth R. March

A/C Tail No.: 297

DAY FORTY-ONE: COMBAT OPERATIONS continued

MISSION VIII: Being directed by AWACS to fly a CAPS mission, this group of four SCANG F-16's returned to base with their munitions. The aircraft did not drop their wing tanks or experience any battle damage.

Lead Pilot: Major Richard M. Ball

A/C Tail No.: 312

MISSION IX: This flight of four SCANG F-16's hit the same target area as those on Mission VII. The pilots on this mission reported leaving five tanks burning after dropping their Mark-82 bombs and firing the aircraft's gatling guns. No F-16 pilot reported dropping his wing tanks or receiving any battle damage.

Lead Pilot: Capt. John A. Sizemore

A/C Tail No.: 288

DAILY LOG: The 174th TFG, NYANG mounted their F-16's gun pods to fly close air support missions. NYANG F-16 no. 391 returned to base from one such mission with battle damage.



## DAY FORTY-TWO: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0615-1910 Hours  
No. Bombs Dropped: 90  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 3  
No. Air Aborts: 0

Date: 27 February 1991  
FMC Rate: 88%  
No. Planes: 36  
No. Sorties: 35  
No. Code One: 24  
No. Code Two: 3  
No. Code Three: 8

### SYNOPSIS:

**MISSION I:** Because of low overcast skies and their proximity to allied ground forces, the four SCANG F-16's on this mission did not drop their Mark-84 bombs. No wing tanks were dropped and no battle damage was sustained by the aircraft.

Lead Pilot: Capt. Joseph G. Weston

A/C Tail No.: 317

**MISSION II:** Using air refueling, the four SCANG F-16's in this flight were redirected to a target area containing Iraqi military vehicles. Dropping their Mark-84 bombs, SCANG pilots reported destroying numerous vehicles. No aircraft dropped its wing tanks or suffered battle damage. Prior to take off, F-16 no. 306 aborted because of a stores management system (SMS) problem and was replaced by no. 288.

Lead Pilot: Major Richard M. Nauman

A/C Tail No.: 312

**MISSION III:** As with Mission I, the four aircraft on this mission returned with their munitions unexpended. No wing tanks were dropped and no battle damage reported to any F-16 on this flight.

Lead Pilot: Major Timothy R. Rush

A/C Tail No.: 305

**MISSION IV:** Loaded with two Mark-84 bombs apiece, the four F-16's on this mission scored "eight good hits" on a river causeway destroying four to five vehicles in the process. Only radar threats were detected during the bombing run. All ordinance was expended and no aircraft dropped its wing tanks. No F-16 reported any battle damage.

Lead Pilot: Major Andrej Kokal

A/C Tail No.: 317

**MISSION V:** On this mission, SCANG F-16's were tasked to bomb Talil Air Field in Iraq. Unloading all munitions, the SCANG pilots reported destroying two hangers and two buildings. The flight encountered light AAA and no aircraft dropped its wing tanks. No F-16 sustained any battle damage.

Lead Pilot: Capt. Thomas B. Spratt

A/C Tail No.: 532

**MISSION VI:** Five hardened buildings and one hardened aircraft hanger were destroyed by this flight of four SCANG F-16's. All aircraft dropped their bombs and none dropped their wing tanks. No F-16 experienced any battle damage.

Lead Pilot: Capt. Thorne S. Ambrose

A/C Tail No.: 305

**MISSION VII:** The target area on this mission was a road intersection in Iraq containing many vehicles. SCANG pilots reported dropping their TER mounted Mark-82 bombs through the clouds onto the target area. All munitions were expended and no F-16 dropped its wing tanks. No aircraft reported any battle damage.

Lead Pilot: Major George R. Jernigan

A/C Tail No.: 317

**DAY FORTY-TWO: COMBAT OPERATIONS** continued

**MISSION VIII:** As with Mission VII, the F-16's on this flight bombed numerous vehicles congested on a major road intersection around the Basara section of Iraq. Aircraft no. 293 did not drop its bombs and aircraft no. 312 returned to base loaded with two bombs. No aircraft dropped its wing tanks and no aircraft had any battle damage. Prior to take off, aircraft no. 308 aborted because of problems with landing and taxi lights and was replaced by no. 293.

Lead Pilot: Capt. John A. Richardson

A/C Tail No.: 312

**MISSION IX:** Again bombing through the cloud cover, the three SCANG F-16's on this flight expended all of their Mark-82 bombs. The aircraft were bombing the same congested intersection as Missions VII and VIII. Because of the bad weather, the pilots could not assess any battle damage. No wing tanks were dropped and no battle damage was sustained by any aircraft.

There were only three aircraft on this mission because F-16 no. 291 aborted EOR for a RPM gauge problem.

Lead Pilot: Major John N. Bellinger

A/C Tail No.: 304

**DAILY LOG:** The 174th TFG, NYANG removed the gun pods from their F-16's today.

SCANG aircraft no. 290 went into its phase inspection today. An in-flight emergency was sounded at around 1800 hours on the air base when a F-15 pilot was forced to use the cable barrier to stop the aircraft when it landed on the runway. The aircraft landed safely.



## DAY FORTY-THREE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0000-0000 Hours  
No. Bombs Dropped: 0  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 28 February 1991  
FMC Rate: 96%  
No. Planes: 36  
No. Sorties: 00  
No. Code One: 0  
No. Code Two: 0  
No. Code Three: 0

### SYNOPSIS:

DAILY LOG: Beginning at 0800 hours local time, a cease fire went into effect in the theater of operations. President Bush announced the cessation of offensive operations and gave the Iraqis 48 hours to accept the 12 United Nations resolutions and to comply with certain other requirements.

SCANG's missions were cancelled and six F-16's were put on alert status.

**DAY FORTY-FOUR: COMBAT OPERATIONS**

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0000-0000 Hours  
No. Bombs Dropped: 0  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 1 March 1991  
FMC Rate: 96%  
No. Planes: 0  
No. Sorties: 0  
No. Code One: 0  
No. Code Two: 0  
No. Code Three: 0

**SYNOPSIS:**

**DAILY LOG:** No missions were scheduled as SCANG aircraft remained on alert status during the period of the cease fire.



## DAY FORTY-FIVE: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0925-1025 Hours  
No. Bombs Dropped: 0  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 2 March 1991  
FMC Rate: 96%  
No. Planes: 0  
No. Sorties: 0  
No. Code One: 0  
No. Code Two: 0  
No. Code Three: 0

### SYNOPSIS:

**DAILY LOG:** During the cease fire, the South Carolina Air Guard was put on alert status with six F-16's ready-to-go at a moment's notice. At 0925 hours, SCANG pilots were dispatched to their aircraft to start engines in preparation for a mission. During this alert, the NYANG scrambled four F-16's.

The alert was caused by 100 tanks and other vehicles of an Iraqi Republican Guard unit leaving Basara on a major highway to Baghdad. The unit encountered the American 24th Mechanized Infantry Division and a battle ensued. Iraqi units initially suffered six T-72 and five T-54 tanks destroyed, uncounted armored personnel carriers destroyed and prisoners of war captured. Those elements of the Guard wishing to fight were engaged by the Americans and those Republican Guard units wishing to escape were allowed to do so.

The American held Talil air field located inside Iraq, was encountering sniper fire on military personnel occupying the base. The situation at the base was still tense as American forces tried to nullify the threat from isolated pockets of Iraqi resistance.

At 1025 hours, SCANG pilots were told to stand down and the F-16 engines were shut off. However, the SCANG was put on a heightened state of alert for the remainder of the day.

## DAY FORTY-SIX: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0000-0000 Hours  
No. Bombs Dropped: 0  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 3 March 1991  
FMC Rate: 96%  
No. Planes: 0  
No. Sorties: 0  
No. Code One: 0  
No. Code Two: 0  
No. Code Three: 0

## SYNOPSIS:

DAILY LOG: SCANG kept six aircraft on alert throughout the day as the cease fire in the region continued. Allied military leaders met with Iraqi military leaders to work out agreements to end the war.

Al Kharj AFB was visited by General Charles Horner, commander of the Ninth Air Force. He spoke to officers and enlisted personnel in Hanger Three about the conduct of the war, peace negotiations and rotation for military personnel stationed in the middle east.



## DAY FORTY-SEVEN: COMBAT OPERATIONS

Place: Al Kharj AFB, Saudi Arabia  
Operation Hours: 0000-0000 Hours  
No. Bombs Dropped: 0  
No. Wing Tanks Dropped: 0  
No. Battle Damaged A/C: 0  
No. Ground Aborts: 0  
No. Air Aborts: 0

Date: 4 March 1991  
FMC Rate: 00%  
No. Planes: 0  
No. Sorties: 0  
No. Code One: 0  
No. Code Two: 0  
No. Code Three: 0

### SYNOPSIS:

**DAILY LOG:** Intelligence reports concerning the fighting that occurred on 2 March 1991 indicate it was the result of Republican Guard forces fleeing Basara. The Iraqi forces were fleeing the rioting occurring in Basara when the force encountered the American 24th Mechanized Infantry Division. Refusing to surrender, the Guard forces opened fire and was then fired upon by the American forces. Upwards of 3,000 Iraqi POWs were captured, 95 APCs and numerous T-72 tanks destroyed. No losses were reported by American forces.

In another incident concerning Iraqi army units, two infantry units were observed fighting one another. It was not known how or why the fighting started.

## COMBAT OPERATIONS

Dates: 5 March - 18 March 1991  
Day 48 to 61

### SYNOPSIS:

**Daily Log:** While the coalition and Iraqi representatives worked out agreements to end the Persian Gulf War, the South Carolina Air National Guard remained on alert status. The squadron maintained 12 aircraft fully armed and prepared to fly at a moment's notice while the two sides exchanged prisoners of war. During this period, SCANG flew "maintenance" sorties to keep all aircraft battle ready.

SCANG continued to maintain aircraft on alert status and to fly maintenance missions. On 11 March 1991, the squadron began preparing for its return to the United States. Personnel began turning in unused chemical warfare gear and preparing their 'A' bags for shipment. As long as the unit remains on alert status, the squadron is still in combat operations.

On 12 March 1991, two F-16's from Moody AFB, Georgia arrived and were parked with the Seymour Johnson AFB, F-15E's. The Moody AFB unit will replace SCANG at Al Kharj AFB.

At 0900 hours 14 March 1991, the 336th TFS from Seymour Johnson AFB, began taking off in their F-15E's for the flight back to the United States. Two KC-10 air refueling aircraft landed, loaded and departed Al Kharj AFB on 14 March 1991 as part of the force deploying the 336th to Goldsboro, North Carolina. On 15 March 1991 SCANG began flying Combat Air Patrol Sorties (CAPS). Al Kharj AFB squadrons were tasked with CAPS as a result of the current political situation within Iraq. During the previous week, Iraq requested of the United Nations and the United States to be allowed to fly its aircraft from southern Iraq to the area around Baghdad. Iraq also wanted to return its aircraft from Iran. These requests were denied. On 14 March 1991, Iraqi military officials delivered a letter to the American Army's XVIII Corps in Iraq stating it would begin moving its aircraft on 15 March 1991.

In response to this letter, General Charles Horner, CENTAF Commander ordered the CAPS missions be flown to protect allied troops on the ground in Iraq and Kuwait. As a result, four of SCANG's aircraft were reconfigured to carry AIM-9 missiles and sent aloft. These four aircraft flew sorties in southern Iraq and Kuwait. Another six aircraft were armed with bombs, with two put on alert status and four designated as replacements.

17 March 1991 - SCANG continued to fly CAPS missions from 0600 to 1700 hours. Armed with AIM-9 missiles, the F-16's flew sorties of two aircraft each throughout the day. This day also marked the beginning of the Islamic holiday period known as Ramadan, a period of fasting during the day for all Muslims. A congressional party of 20 United States Senators was scheduled to visit Al Kharj AFB today. Senator J. Strom Thurmond from South Carolina was among the visitors.

18 March 1991 - SCANG received word today that its aircraft will depart the theater on 4 April 1991. The squadron will begin processing personnel to leave Al Kharj AFB, on 20 March 1991 in order to have maintenance personnel at McEntire ANGB, when the F-16's arrive. Personnel leaving 20 March 1991 will be drawn from the "Leading Edge" group who were the first to arrive in Saudi Arabia on 30 December 1990.

A Northwest Orient commercial airplane departed Al Kharj AFB, at 1830 hours carrying personnel from Seymour Johnson AFB's 336th squadron for the trip home.



## COMBAT OPERATIONS

Dates: 19 March - 31 March 1991

Day 62 to 73

### SYNOPSIS:

**DAILY LOG:** 19 March 1991 - SCANG's chaplin, Major Gil Evans received word today that his mother died in South Carolina of cancer. Major Evans has served with the SCANG in Saudi Arabia since 30 Dec 1990.

20 March 1991 - 53 CAM Squadron personnel departed Al Kharj AFB on two separate aircraft for the trip back to the United States. A total of 83 SCANG people left including Major Gil Evans, SCANG chaplin.

Today is the day the Iraqi government is to sign the peace treaty ending the Persian Gulf War. SCANG continues to fly CAPS during this period. At approximately 1230 hours today the 53rd TFS from Bitburg

AFB, Germany reported shooting down an Iraqi SU-22 aircraft. It was the ninth kill for the squadron stationed here at Al Kharj AFB.

21 March 1991 - Approximately 200 SCANG personnel were scheduled to leave Al Kharj AFB over the next few days. However, these departures were cancelled when CENTAF moved SCANG's departure date from 4 April to 20 April 1991. Meeting with CAM personnel in the squadron hanger, Major Charles Savage, 169th Commander, explained that CENTAF Commander, General Norman Schwartzkopf thought that the Air Force was departing the theater of operations too rapidly.

22 March 1991 - SCANG continued to fly CAPS missions plus alerts. Today's sorties began with a 0600 hours take off and continued until 1700 hours. A flow of Air Force C-5A aircraft came through Al Kharj AFB taking equipment bound for Seymour Johnson AFB, N. C.

23 March 1991 - The 53rd TFS again shot down an Iraqi SU-22 aircraft which was accompanied by a single engine propeller trainer. Once the SU-22 was hit, the pilot of the trainer ejected from his aircraft leaving the trainer to crash.

24 March 1991 - SCANG continued to fly CAPS with aircraft still on alert status. 25 March 1991 - While flying the last CAPS mission of the day, the pilot of aircraft no. 320 spotted two Iraqi helicopters known by the codenames Gizelle and Hip. Aircraft no. 532 entered its phase inspection today and will have the South Carolina Air Guard's logo painted on its fin flash.

26 March 1991 - Aircraft no. 532 finished its phase inspection. SCANG is still flying CAPS but this was the last day for a full flying schedule.

27 March 1991 - SCANG was scheduled to fly four sorties however, since the Saudi air force is not flying during Ramadan, the squadron's number was increased to eight sorties.

28 March 1991 - General Oakes, U. S. Air Force, Europe Commander visited Al Kharj AFB today. SCANG still flying CAPS and aircraft no. 532 is having the South Carolina logo painted on its fin flash.

29 March 1991 - It was learned that the active duty squadron from Moody AFB, Georgia has sent 12 of its aircraft and some of its personnel back to the United States. This unit arrived in theater around the end of January, 1991 after SCANG was already in Saudi Arabia. The active duty unit is also flying fewer sorties than SCANG.

30 March 1991 - SCANG's flying schedule has been reoriented for today's mission. The first take off is at 1300 hours with the last plane scheduled to land at 1930 hours. SCANG will again fly eight sorties.

31 March 1991 - SCANG continued to fly CAPS missions with ten aircraft. Two aircraft remained on alert status.



## COMBAT OPERATIONS

Dates: 1 April - 22 May 1991  
Day 74 to 125

### SYNOPSIS:

DAILY LOG: 1 April - 3 April 1991 - SCANG continued to fly CAPS and maintain two alert aircraft on the ground. On 3 March 91, aircraft no. 319 experienced an in-flight emergency because of a brake failure. The aircraft used the barrier to land and the operation went without incident.

4 April 1991 - SCANG continued to fly CAPS and maintain aircraft on alert status. The temperature during the day is now surpassing the 100 degree Fahrenheit point.

5 April 1991 - The squadron flew 10 sorties today and kept two aircraft on alert status. Temperatures on base continued to exceed 100 degrees with sand storms.

6 April 1991 - SCANG flew 10 sorties with two aircraft positioned on alert status.

7 April 1991 - SCANG's flying schedule was reduced to six aircraft flying CAPS with four aircraft on alert status.

8 April to 13 April 1991 - At commander's call on 9 April 1991, Major Charles E. Savage informed the 169th that the squadron's aircraft will be leaving the theater on 20 April 1991. Major Savage said that approximately one-half of the squadron personnel will leave Saudi Arabia around 15 April 1991 and the remainder on or about 20 April 1991. Beginning on 10 April 1991, CAM Squadron started installing center line tanks on the aircraft. On 11 April 1991, Aircraft no. 391 of the NYANG crashed on takeoff. The F-16 blew a tire as the aircraft was moving down the runway causing the front wheel strut to collapse. The aircraft skidded off the side of the runway but not before the pilot ejected from the F-16. He was not injured. This same aircraft received a SAM missile hit during the Persian Gulf War.

14 April 1991 - CAM Squadron sent 220 of its personnel home, leaving approximately 190 personnel to maintain the squadron's 24 F-16's.

15 April 1991 - CAM squadron relinquished the operation of the munitions area to the active duty Air Force depot team. The remaining CAM personnel were put on indefinite hold for leaving Al Kharj AFB. SCANG continued to fly CAPS and keep aircraft on alert.

16 April to 30 April 1991 - Aircraft are kept on alert status and SCANG continues to fly CAPS. SCANG's missions are to keep the Iraqi Air Force from flying its fixed wing aircraft and to protect the C-130 aircraft flying relief missions to Kurdish refugees in Iraq. Lieutenant General Conway and Major General Kiley of the National Guard Bureau visited the SCANG squadrons at Al Kharj AFB.

1 May to 13 May 1991 - SCANG continued to fly CAPS and keep aircraft on alert status. As soon as 5,000 Kurdish and other refugees were safely in Saudi Arabia, the reserve forces were released. The residual active duty forces assumed CAP duties.

14 May to 22 May 1991 - SCANG begins cleaning up area and packing to return to the United States. Only the hangar and NDI lab are left when everything is packed. The F-16's depart Al Kharj on 17 May and CAM Squadron personnel leave on the 19th after being delayed by a two day sand storm. Seven personnel were left behind to serve as cargo couriers but depart for the United States within a few days. Approximately 3,000 Air Force and Air Guard personnel were still stationed at Al Kharj AFB after SCANG left with the F-111's assigned to the base flying two to four sorties a day.



## Chapter VI

### Administration Branch Activity Summary

Learning new procedures and tasks were the requirements facing Administration Branch personnel during Operation Desert Storm. Being deployed to Al Kharj AFB, Saudi Arabia also required the squadron's staff to do some things differently than they are accustomed to when they are at McEntire ANGB, South Carolina.

For the first time administrative branch personnel were called upon to prepare and handle secret messages. These messages were also carried to and from the squadron's Maintenance Operating Control Center. Along with secret messages, administrative personnel had to prepare such new documents as 30 day 'Lessons Learned' plans, emergency leave forms, out processing forms, and new letters of designations for deployed locations. The emergency leave and out processing forms had to be designed by the administrative staff.

Promotion requests, awards and decoration paperwork went as normal but the staff would also handle personnel clothing requests. Normally, the supply squadron processes this paperwork but administrative staff handled these requests for such items as new boots or hats and replacement uniforms.

Two important items handled by staff were the flying schedules and squadron mail. Beginning on the second night in country, staff turned out flying schedules for the next day's operations. Often after a schedule was prepared, a mission change would necessitate reworking the schedule, often on a moment's notice. Also, mail was processed for over 500 people each day and sometimes twice a day.

Along with these tasks, making certain such mundane items as using the correct letterhead and putting United States Air Force beside the signature block was done by administrative staff. These items were another change from the normal routine at McEntire ANGB.

The administrative operation was literally built from the floor up. Upon arrival, administrative personnel found a maintenance operation tent and little else. The tent had no flooring, no electricity, and no furniture. Working two 12 hour shifts, administrative personnel also helped with setting up the maintenance operation tent along with filling sandbags, building bunkers, and performing basewide details. After two weeks of work, the maintenance operations tent was fully operational.

Prior to deployment, administrative personnel handled an increase in promotion and annual training requests. The majority of the annual training requests exceeded the normal 15 day tours. Personnel listings were prepared for branch assignments, this was used to sort mail, clothing sizes, tent assignments and by grades. This last list was used to determine base detail assignments.

In addition, administrative personnel learned the "Sarah" computer program in order to be able to prepare and send messages. Prior to Operation Desert Storm, only full time Guard personnel knew this program.



## Chapter VII

### Avionics Branch Maintenance Summary

Operation Desert Storm provided a lot of first time experiences for the personnel in the 169th Consolidated Aircraft Maintenance Squadron's (CAM) Avionics Branch. Besides deploying to a foreign country to participate in a war, the Branch had to work with equipment on which it had little training or experience.

The first problem confronting Avionics personnel was the use of AN/ALQ-119-15 Electronic Counter Measure (ECM) pods. In the South Carolina Air National Guard's (SCANG) history of flying F-16's, the unit had never used ECM pods. SCANG pilots had never flown with pods on the aircraft and Avionics personnel had never worked on them.

On 4 December 1990, SCANG received its first pods loaned from F-16 units in Montgomery, Alabama, Springfield, Illinois, and Terre Haute, Indiana. For the first two days after arrival, Avionics personnel were trained by Shaw AFB people on how to load and unload the pods from the aircraft. Borrowed Shaw AFB equipment was used by the Branch to accomplish this feat.

By 11 December 1990, the unit had received Semi-Automatic Support Equipment (SASE) from Montgomery, Alabama along with training personnel from Byrd Field, Virginia and Danley Field, Alabama. SASE equipment is used to test the ECM pods. The training personnel were later replaced by eight active duty United States Air Force (USAF) personnel who served with SCANG during its Operation Desert Storm deployment. Five of the USAF personnel were from Cannon AFB, New Mexico and three were from Davis Monthan AFB, Arizona. In addition to these augmentees, the branch received three active duty people for assistance in its "C" Shop section. Two individuals came from Nellis AFB, Nevada and one came from Luke AFB, Arizona. All three deployed with SCANG to Al Kharj AFB.

Upon arrival in Saudi Arabia, branch personnel had to reconfigure the pods from station seven to station five. When high altitude arcing problems with the pods began occurring during combat operations, Avionics personnel replaced the high voltage power supplies and traveling tubes. These repairs, along with pilots flying lower altitude missions, corrected the problems.

Mobile Avionics Intermediate Shop (AIS) test stations were another first time maintenance experience for Avionics Branch personnel. The test stations are housed within 12 mobile facilities measuring eight feet by 20 feet by eight feet. On 5 February 1991, the first station arrived at Al Kharj AFB, and within 48 hours Avionics personnel had it up and running repairing the first line replaceable unit (LRU).

Avionics Branch consists of seven sections: A, B, C, AVTR, AIS, Type IV Precision Measurement Equipment Laboratory (PMEL), and ECM pod. The Branch had 33 members go with the first group of SCANG members to deploy to Saudi Arabia. While more branch members were to arrive later, the original members began erecting an avionics facility for both SCANG and the New York Air National Guard (NYANG). The facility consisted of two "double wide" tents erected during a sand storm and a concrete pad for the test stations which were to arrive within 30 days. Both Guard unit avionics branches worked in the same tent until a general purpose shelter for the ECM pods was constructed. That allowed the two branches to house their operations separately in the two tents.



## Chapter VII continued

While working two 12 hour shifts, the two avionics branches filled sandbags, put camouflage netting over their structures and built four bomb shelters. SCANG and NYANG also combined their operations in the ECM pod, AIS and Type IV PMEL areas. This cooperation began prior to deployment when the two units started coordinating their equipment and personnel requirements for Operation Desert Storm. Both branches consolidated their AIS, PMEL, ECM pod, PAMS equipment, and AIS, ECM pod, and PMEL personnel.

On the thirtieth day of combat operations, a need arose for the SCANG pilots to use the F-16's secure voice radio system. This required the Avionics Branch to examine and render all systems operational on all of the squadron's 24 aircraft. This task was accomplished in seven days.

Avionics Branch personnel completed all of these tasks successfully while also performing basewide details such as guard duty and other functions.

## Chapter VIII Field Maintenance Branch Activity Summary

Sand was the enemy of the Field Maintenance Branch as repair crews worked around-the-clock to keep the 24 F-16's of the South Carolina Air National Guard (SCANG) flying. The gritty gremlin of the desert managed to work its way into the squadron's aircraft components causing plenty of headaches for the ground crews. Undaunted, Field Maintenance personnel devised many ways to overcome the obstacles arising from SCANG's deployment to the Saudi Arabian desert in support of Operation Desert Storm.

On the third day after arriving at Al Kharj AFB, SCANG began its flying schedule. This would mark the beginning of Field Maintenance's encounters with its desert foe. The aircraft engines were test run during a sand storm and on the first day of flying, ground aborts began to occur. Sand had worked its way into the F-16's Emergency Power Unit's (EPU) 13th stage bleed air valve causing them to malfunction.

Performing a depot level maintenance function, the Field Maintenance personnel repaired the EPU failures. Ground crews disassembled, cleaned and reassembled the valves until replacement parts became available in the supply system.

Sand mixing with Halon seals also caused 'O' ring sealing problems. Used to suppress fire in the F-16's fuel system, the fire retarding liquid seals would become contaminated with sand when the Halon bottles were removed for servicing and then reconnected.

Halon presented another challenge for Field Maintenance in that the Branch could not anticipate how heavily the material would be used. Having never used Halon under war time conditions before, the Branch had to work to develop an adequate supply source. Halon was expended at a rate of 540 pounds per day which is about four 150 pound bottles of the chemical. Environmental Control Systems (ECS) failures in the seventh and 13th stage systems were also caused by sand. Field Maintenance personnel tore down, cleaned, reassembled and sometimes replaced the sand contaminated parts in order to make disabled aircraft serviceable.

Fuel feed problems with the F-16's external wing tanks were a constant source of repair worries for the Field Maintenance Branch. The constant use of the aircraft's turbine pumps was the main source of the problem. In the United States, SCANG missions rarely require the use of wing tanks but in Saudi Arabia under desert conditions, the pumps were sorely tested. Removing and replacing the turbine pumps was how Field Maintenance repaired the majority of the problem tanks.

In preparation for Operation Desert Storm, the Branch's engine shop performed TCTO 2J-F100-(I) 543 fleetwide engine removals while still at McEntire ANGB. Each engine removal required two days labor and the process was initiated in mid November and finished in mid December, 1990. This successful operation was made possible through the engine shop working two shifts to complete the work.

During the combat phase of Operation Desert Storm there were 17 engine changes. Because of mission requirements, the combat deployment did not require tearing engines down and rebuilding them. Only trim adjustments and limited accessory replacements could be done otherwise, an aircraft's engine was removed and replaced.



## Chapter VIII continued

One thing Field Maintenance was rarely called upon to repair was engine afterburner problems. In its normal operations back home, Branch personnel encounter this problem more often than they did at Al Kharj AFB.

Field Maintenance adapted very well to its war time conditions 8,000 miles from home. Using Operational Readiness Inspection (ORI) and Maintenance Evaluation Inspection (MEI) experiences as guides, the Branch was prepared for its deployment in support of Operation Desert Storm. Since the 169th CAM Squadron was going to a 'bare' base, Field Maintenance had to ensure it had adequate supplies and parts to meet any contingency. Its personnel were prepared for the magnitude of the unit's undertaking and everyone demonstrated a positive attitude.

Working two 12 hour shifts, Field Maintenance personnel set up its aerospace systems shops which includes an electrical, hydraulic, egress, and environmental shops. Repair and Reclamation functions were combined with the New York Air Guard's (NYANG) operations and the Fabrication functions with the 4th TFW's EMS section. This latter function was housed in an expandable building in order to accommodate the shop's Joint Oil Analysis Process (JOAP) machine. Air, Ground Equipment (AGE) shop was also collocated with the 4th TFW's EMS and an engine shop was established in the squadron hanger. Personnel accomplished all of these tasks while also filling sandbags, building bunkers and pulling basewide details.

The collocation experiences of Field Maintenance proved worthwhile and assisted in helping the Branch to obtain needed parts. As an example, turbine pumps and fuel system parts were often traded with the NYANG.

In addition, Field Maintenance ran a wing tank buildup operation which was a totally new function for the CAM Squadron. Beginning 10 January 1991, the buildup team worked two 12 hour shifts. Its productivity improved from two certified completed tanks to 12 certified completed tanks per shift. Staffed by individuals with no previous experience, and augmented by persons without fuel shop AFSC's, the SCANG wing tank team equaled the production rate of the base's full time, active duty wing tank team. By the time CAM's buildup team stopped production, squadron personnel had constructed 263 wing tanks in support of Operation Desert Storm.



## Chapter IX

### Munitions Branch Activity Summary

#### Introduction

When notified of its impending call to active duty, the Munitions personnel reviewed the Branch's inventory to determine what was in short supply. With the assistance of the National Guard Bureau in Washington, D. C., all necessary material needed an impending deployment to Saudi Arabia was requisitioned. Those items identified as being in short supply, were placed on priority order.

Information in the form of written briefs titled, "Lessons Learned" were obtained from other units already deployed to the theater of operations. Munitions personnel studied this data to get ideas on how to prepare their equipment, what supplies would be needed, and what to expect once deployed.

Working without specific information on its deployment site or combat sortie expectations, the Munitions Branch could not tailor its deployment package to the highest caliber possible. Despite these limitations, Munitions personnel spent a great deal of effort on preplanning, which produced a high success rate for the Branch in support of Operation Desert Storm.

#### Munitions Handling Shop

Initially there were 20 munitions ammo personnel and bomb build up personnel. They came with the advance party on an Air Force KC-10 "tanker" and from day one they were hard at work. These people had to establish a control area, a supply point, a maintenance area, a radio network, missile handling area, while filling sand bags and building bunkers.

These were the experiences of CAM Squadron's Munitions Section when it first arrived at Al Kharj AFB, in the middle of the Saudi Arabian desert. During two blinding sand storms the munitions personnel constructed holding yards, loading ramps and RAMS while unpacking pallets and distributing supplies. During the first two days on station, F-16 maintenance included downloading the aircraft's missiles and on the third day, the first Mk-82 bomb material arrived. That third day, munitions personnel built 246 Mk-82 bombs.

Minor irritations such as working 14 hour days or obtaining enough vehicles, did not hamper the munitions people, as they were confronted with the larger task of merging CAM's munitions operation with the New York Air National Guard's operation. This merger with the 174th TFG from Syracuse, New York was accomplished in every section of the munitions organization. It was a merger that worked extremely well. In addition, the Civil Engineering Squadron had to install grounds for electrically charged munitions and high pressure air hoses for the charging bottles on the ALS missiles.

Once combat operations began, munitions did not miss a frag order and in most cases, ordinance was ready 12 hours before it was needed. There were few accidents because safety was emphasized. A lot of preparation was done before coming to Saudi Arabia, a lot more than is done on an Operational Readiness Inspection (ORI) or other exercises.

When it was up to its full compliment of 58 individuals, the section handled over 3,000 Mk-82, 1,500 Mk-84 and 700-CBU bombs. Along with this, 5,000 pounds-per-square-inch (PSI) American size, or three 1,500 to 2,000 PSI Saudi Arabian size bottles of Argon were used every five days. By the end of the first month of hostilities, over 5,000,000 pounds of explosives were expended.



## Chapter IX continued

All of this was accomplished while working under the pressures of handling live munitions and the stress of coping with SCUD missile attacks and possible sabotage. During the entire course of operations, the South Carolina Air National Guard never ran out of the munitions needed to accomplish its assigned missions.

### Weapons Release Shop

With 11 assigned personnel available, the Weapons Release Shop was responsible for 24 F-16 aircraft bomb racks, missile launchers, and release systems. Working around-the-clock to service these systems, the Weapons Release personnel achieved a 99.5% release rate for all bombs.

Although personnel worked during sand storms and Scud missile alerts, all needed repairs were made in a timely manner. During tight schedules, the Weapons Release, Gun and Weapons Loading Shops assisted one another in accomplishing all assigned tasks.

### Weapons Loading Shop

During Operation Desert Storm, the Weapons Loading Shop personnel loaded 4,338,537 pounds of explosives. This tonnage was comprised of 3,639 CBU-52, CBU-58, CBU-87, Mk-82, Mk-84 bombs and AGM-9 and AGM-65 missiles expended during the Persian Gulf War. In addition, shop personnel also loaded chaff, flare and 20mm ammunition.

With 15 assigned load crews augmented by Gun Shop personnel, the Weapons Loading personnel armed, launched, recovered and dearmed aircraft which flew 1,359 sorties. This required the shop to work 24 hours a day in order to meet all flying schedules. Although hampered at times by sand storms which slowed equipment, Weapons Loading personnel met all mission requirements.

### Gun Shop

A total of 23 SCANG F-16's fired their 20mm gatling guns while flying sorties in Operation Desert Storm. This resulted in the unit expending 10,763 rounds of ammunition during the Persian Gulf War. All aircraft gun systems operated as designed because of the effort put forth by the Gun Shop personnel.

In addition to servicing the F-16's gun systems, Gun Shop crew members also assisted in the arming, launching, recovering and dearming of all aircraft. Gun Shop personnel also performed 30 day functional and 60 day missile launcher inspections. Although sand storms and dust made loading the 20mm guns difficult, the crews were able to keep the ammunition loading system operating and making all gun repairs in a timely fashion.

## Chapter X Organizational Maintenance Branch Activity Summary

When they arrived at this remote air base in the middle of the Arabian Desert, it was being constructed on top of packed imported clay spread over the desert sands. Al Kharj Air Force Base, Saudi Arabia was known in the United States Air Force lexicon as a "bare base", one built literally from the ground up. For the men and women of the 169th Consolidated Aircraft Maintenance Squadron's Organizational Maintenance Branch that meant having to go to work without a lot of the items normally found on an American air base.

The branch personnel had to live without heat or electricity in their tents for the first three days after their arrival. Shops had to be set up in the hanger and a consolidated tool kit system established. In addition, the branch had to set up "hot pits", something the CAM Squadron had never done before. "Hot pitting" airplanes is the method by which returning aircraft are refueled on a runway taxi ramp. This task was accomplished by assistance from the 53rd TFS, Bitburg AFB, Germany whose personnel trained the 169th in establishing and running a hot pit. In addition to these tasks, sandbags had to be filled and air raid bunkers built.

On the day after their arrival, Organizational Branch personnel started work on what was to become the routine 12 to 14 hour days getting aircraft ready for combat. The second day found the flight-line people dropping the squadron F-16's center line tanks and refueling the aircraft. Getting the planes combat ready was next as the South Carolina Air Guard was scheduled to begin its flying operations on its fourth day in Saudi Arabia.

During the course of actual combat operations which began 17 January and ended 27 February 1991, the Organizational Maintenance Branch changed 17 jet aircraft engines and conducted 18 combat aircraft phase inspections. One of the inspections was done in conjunction with an aircraft flap change and the 18 aircraft inspected represented two-thirds of the squadron's fleet. These phase inspections were noteworthy in that each was done in an average of 24 hours. Under combat conditions, three days are allowed for a phase inspection and in peace time, 10 days is the normal length of time scheduled. Along with these tasks, the branch's night shift personnel assisted with the wing tank build up operation.

For CMSgt. Jim T. Bowie it was his first experience as Maintenance Supervisor as he directed his personnel during Operation Desert Storm, the military operation that brought the South Carolina Air National Guard to Saudi Arabia. CMSgt. Bowie credited the training conducted in preparation for the unit's Operational Readiness Inspection (ORI) as a factor which caused maintenance performance to "peak" during combat operations. The ORI's were cancelled as a result of the Persian Gulf crisis. Bowie also gave great credit to the "weekend" Guard members who deployed to Saudi Arabia. "If it wasn't for them, this operation would not have been a success," CMSgt. Bowie said. He credited the part-time Guard's men and women for their attitude and high morale in support of Operation Desert Storm.



# Appendix A

## SOUTH CAROLINA AIR NATIONAL GUARD 169th Consolidated Aircraft Maintenance Squadron (CAM) Al Kharj Air Force Base, Saudi Arabia

### CAM Maintenance Summary for Combat Operations - 17 January to 27 February 1991

Category	Totals
FMC Rate %:	87.1%
MC Rate %:	89.1%
Sortie Effectiveness %:	97.8%
Sorties Scheduled:	1,481
Sorties Flown:	1,359
Sorties Cancelled due to:	
Weather:	92
Maintenance:	30
Supply:	0
Operations:	0
Hours Scheduled:	3,061.1
Hours Flown:	2,786.7
PMCS Rate %:	2.0%
NMCB Rate %:	0.4%
NMCM Rate %:	6.7%
NMCS Rate %:	3.7%
Ground Abort Rate %:	7.2%
Air Abort Rate %:	0.5%
Break Rate %:	20.7%

# Appendix B

## FOURTH TACTICAL FIGHTER WING (PROVISIONAL)

Al Kharj Air Force Base, Saudi Arabia

### Basewide Aircraft Maintenance Summary Statistics 17 January to 27 February, 1991

#### Air National Guard Units Summary of Mission Capable, Abort, In-Flight Emergency and Break Rate Percentages

Unit	Type	FMC%	MC %	Aircraft Aborts		I-F Emerg.		Break
	Arcft	Rate	Rate	Grnd Prct	Air Prct	No.	Prct	Rate %
157th TFS	F-16	87.1%	89.1%	98	7.2%	7	0.5%	11 0.81%
174th TFS	F-16	81.8%	87.7%	78	7.5%	6	0.6%	9 0.86%
F-16 Unit Totals:		84.5%	88.3%	176	7.3%	13	0.5%	20 0.82%

#### Active Duty Air Force Units Summary of Mission Capable, Abort, In-Flight Emergency and Break Rate Percentages

Unit	Type	FMC%	MC %	Aircraft Aborts		I-F Emerg.		Break
	Arcft	Rate	Rate	Grnd Prct	Air Prct	No.	Prct	Rate %
335th TFS	F-15E	82.4%	82.4%	47	4.1%	31	2.8%	8 0.70%
336th TFS	F-15E	86.4%	86.4%	48	4.2%	20	1.8%	8 0.70%
F-15E Unit Totals:		84.4%	84.4%	95	4.1%	51	2.4%	16 0.70%
53rd TFS	F-15C	77.8%	77.9%	74	5.6%	45	3.6%	4 0.35%



# Appendix C

## FOURTH TACTICAL FIGHTER WING (PROVISIONAL)

Al Kharj Air Force Base, Saudi Arabia

### Fourth Tactical Fighter Wing's Basewide Combat Statistics 17 January to 27 February, 1991

#### Air National Guard Units Summary of Sorties, Hours Flown, Munitions Expended and Maintenance Nondeliveries

Unit	Type Aircraft	No. of Sorties	Hours Flown	Munitions Expended	No. MND
157th TFS	F-16	1,359	2,786.7	3,958,884	30
174th TFS	F-16	1,050	2,278.0	3,014,682	3
F-16 Unit Totals:		2,409	5,064.7	6,973,566	33

#### Active Duty Air Force Units Summary of Sorties, Hours Flown, Munitions Expended and Maintenance Nondeliveries

Unit	Type Aircraft	No. of Sorties	Hours Flown	Munitions Expended	No. MND
335th TFS	F-15E	1,097	4,084.0	4,856,700	11
336th TFS	F-15E	1,088	3,275.7	6,413,920	14
53rd TFS	F-15C	1,246	7,365.8	23*	0
F-15 Unit Totals:		3,431	14,725.5	11,270,620	25
4th TFW Totals:		5,840	19,790.2	18,244,186	58

\*53rd TFS flew air defense missions. ]  
 Number represents 16 AIM-7 and 7 AIM-9 missiles expended. ]  
 Number not added to total of munitions expended. ]

# Appendix D

## SOUTH CAROLINA AIR NATIONAL GUARD 169th Consolidated Aircraft Maintenance Squadron (CAM) Al Kharj Air Force Base, Saudi Arabia

CAM Maintenance Statistics for the Period  
1-13 January, 17-31 January, and 1-27 February 1991

Category	1-13 Jan 91	17-31 Jan 91	1-27 Feb 91
FMC Rate %:	89.3%	85.3%	88.0%
MC Rate %:	89.9%	89.6%	88.8%
Sortie Effectiveness %:	98.6%	96.7%	99.1%
Sorties Scheduled:	242	534	947
Sorties Flown:	215	464	895
Sorties Cancelled due to:			
Weather:	24	48	44
Maintenance:	3	16	8
Supply:	0	0	0
Operations:	0	0	0
Hours Scheduled:	362.0	1,197.9	1,863.2
Hours Flown:	322.1	974.1	1,812.6
PMCS Rate %:	0.6%	4.3%	0.8%
NMCB Rate %:	0.0%	1.2%	0.0%
NMCM Rate %:	6.3%	8.2%	6.0%
NMCS Rate %:	3.8%	1.0%	5.2%
Ground Abort Rate %:	6.9%	3.3%	5.8%
Air Abort Rate %:	0.0%	1.1%	0.1%
Break Rate %:	13.5%	25.4%	18.7%



# Appendix E

## SOUTH CAROLINA AIR NATIONAL GUARD 169th Consolidated Aircraft Maintenance Squadron (CAM) Al Kharj Air Force Base, Saudi Arabia

### CAM Maintenance Statistics for the Period January through May, 1991

Category	January	February	March	April	May
FMC Rate %:	88.1%	88.0%	96.4%	93.1%	97.1%
MC Rate %:	90.4%	88.8%	96.4%	93.1%	97.1%
Sortie Effectiveness %:	96.4%	99.1%	100%	99.6%	97.4%
Sorties Scheduled:	793	947	287	257	163
Sorties Flown:	679	895	279	254	151
Sorties Cancelled due to:					
Weather:	72	44	8	2	8
Maintenance:	25	8	0	1	3
Supply:	0	0	0	0	0
Operations:	0	0	0	0	0
Hours Scheduled:	1,565.0	1,863.2	722.2	947.5	634.2
Hours Flown:	1,296.2	1,812.6	798.4	989.7	591.9
PMCS Rate %:	2.3%	0.8%	0.0%	0.0%	0.0%
NMCB Rate %:	0.6%	0.0%	0.0%	0.0%	0.0%
NMCM Rate %:	6.7%	6.0%	2.0%	2.3%	1.2%
NMCS Rate %:	2.2%	5.2%	1.7%	4.6%	1.7%
Ground Abort Rate %:	6.2%	5.8%	4.8%	10.2%	5.0%
Air Abort Rate %:	0.7%	0.1%	0.0%	0.8%	0.0%
Break Rate %:	21.6%	18.7%	20.8%	28.7%	13.9%

# Appendix F

## SOUTH CAROLINA AIR NATIONAL GUARD 169th Consolidated Aircraft Maintenance Sqn. (CAM) Al Kharj AFB, Saudi Arabia

### Combat Sortie Statistical Chart January, 1991

Date	FMC% Rate	No. Plane Sched	No. Sort Flown	No. Air	Aborts Grnd	No. Codes One	Two	Three	No. Dropped Bombs	W/T	No. A/C B/D	No. Ops Day
17	100%	36	36	1	2	27	3	6	68	0	0	01
18	96%	36	36	0	1	28	2	6	0	0	0	02
19	96%	48	32(W)	1	3	19	5	8	62	0	0	03
20	96%	32	16(W)	0	0	6	4	6	32	0	0	04
21	96%	32	16(W)	0	0	10	3	3	0	0	0	05
22	96%	32	32	0	2	19	4	9	64	0	0	06
23	92%	48	46(M)	0	6	29	6	11	86	0	0	07
24	84%	36	36	0	0	20	5	11	104	0	0	08
25	92%	36	35(M)	0	4	25	2	8	100	2	1	09
26	96%	32	31(M)	0	6	18	6	8	62	1	0	10
27	96%	32	32	2	1	18	4	10	58	0	0	11
28	92%	32	25(M)	2	11	14	3	8	46	0	0	12
29	80%	32	28(M)	2	4	20	0	8	52	0	0	13
30	92%	30	28(M)	5	3	21	1	6	46	0	0	14
31	92%	30	30	0	1	28	2	0	60	0	0	15
Jumm. Tots.:		524	459	13	44	302	50	108	889	3	1	

#### LEGEND:

Total no. aircraft scheduled: 524  
(M) = Maintenance for aborts: -17  
(W) = Weather cancellations: -48  
459

NOTE: No. sorties does not include  
maintenance flights.



# Appendix G

## SOUTH CAROLINA AIR NATIONAL GUARD 169th Consolidated Aircraft Maintenance Sqn. (CAM) Al Kharj AFB, Saudi Arabia

### Combat Sortie Statistical Chart February 1991

Date	FMC% Rate	No. Plane Sched	No. Sort Flown	No. Air	Aborts Grnd	No. Codes One	Two	Three	No. Dropped Bombs	W/T	No. A/C B/D	No. Ops Day
1	96%	30	30	2	1	22	3	5	167	0	0	16
2	96%	24	24	0	1	22	1	1	48	0	0	17
03	96%	36	36	1	2	28	2	6	207	2	0	18
4	92%	32	32	1	2	24	3	5	62	0	0	19
5	92%	40	40	0	0	30	3	7	78	0	0	20
06	92%	40	38 (M)	2	4	24	2	12	61	0	1	21
7	96%	36	36	1	1	28	2	6	102	0	0	22
8	96%	36	36	0	3	27	8	1	104	0	0	23
09	92%	36	36	0	2	22	3	11	110	0	0	24
10	92%	36	36	1	2	26	4	6	152	0	0	25
11	92%	36	36	0	1	24	3	9	168	0	0	26
12	92%	36	35 (M)	0	4	22	1	12	157	0	0	27
13	92%	36	36	0	2	25	1	10	130	0	0	28
14	92%	28	28	0	0	18	5	5	119	0	0	29
15	96%	36	35 (M)	0	5	27	1	7	70	0	0	30
16	96%	36	36	1	3	20	6	10	168	0	0	31
17	96%	36	12 (W)	0	1	10	0	2	20	0	0	32
18	92%	28	28	0	1	23	0	5	77	0	0	33
19	92%	36	35 (M)	0	1	28	6	1	104	0	0	34
20	96%	36	16 (W)	0	1	14	1	1	40	0	0	35
1	92%	36	36	2	2	28	3	5	117	1	0	36
2	96%	36	36	1	2	28	4	4	101	0	0	37
23	96%	36	36	0	0	27	4	5	72	0	0	38
24	96%	32	32	1	0	18	4	10	62	0	0	39
25	96%	36	34 (M)	1	6	23	2	9	84	0	0	40
26	92%	36	36	0	3	26	1	9	88	0	0	41
27	88%	36	35 (M)	0	3	24	3	8	90	0	0	42
28	96%	36	0 (H)	0	0	0	0	0	0	0	0	43
Summ. Totals:		974	886	14	53	638	76	171	2,768	3	1	

LEGEND:

Total no. aircraft scheduled: 974  
(M) = Maintenance for aborts: -8  
(W) = Weather cancellations: -44  
(H) = Headquarters cancelled: -36  
886

NOTE: No. sorties does not include  
maintenance flights.

# Appendix H

## SOUTH CAROLINA AIR NATIONAL GUARD 169th Consolidated Aircraft Maintenance Squadron (CAM) Al Kharj AFB, Saudi Arabia

### Number of Munitions Expended by Type and Date

Date	CBU-52	CBU-58	CBU-87	Mk-82	Mk-84	AGM-9	AGM-65	Totals	Ops Day	
17 Jan 91					66			66	01	
18					24			24	02	
19			12		14	2		26	03	
20			18		14			32	04	
21									05	
22			62					62	06	
23			84					84	07	
24			68		40	1		108	08	
25			64		36			100	09	
26					120			120	10	
27					58			58	11	
28					48			48	12	
29			10		40			50	13	
30			14		32			46	14	
31					60			60	15	
Sub Total:			332		552	3		887		
01 Feb 91				167				167	16	
02					48			48	17	
03				210				210	18	
04					62			62	19	
05	40				36		14	90	20	
06					58		4	62	21	
07				48	54			102	22	
08	24	16		48	16			104	23	
09		19		71	24			114	24	
10				120	30			150	25	
11				144	24			168	26	
12				132	24			156	27	
13		43		71	24			138	28	
14		16		83	16			115	29	
15					70			70	30	
16				138	24			162	31	
17				12	39			51	32	
18		8		21	44			73	33	
19				42	56			98	34	
20				24	16			40	35	
21				71	46			117	36	
22				54	44		4	102	37	
23					62			62	38	
24					64		8	72	39	
25				48	36			84	40	
26				24	39			63	41	
27				42	30			72	42	
Subtotal:			64	102	332	1,570	986	3	30	2,752
Totals:			64	102	332	1,570	1,538	3	30	3,636



# Appendix I

## SOUTH CAROLINA AIR NATIONAL GUARD 169th Consolidated Aircraft Maintenance Squadron (CAM) Al Kharj AFB, Saudi Arabia

### Summary of Munitions Loaded and Expended -----During Operation Desert Storm-----

17 January to 27 February, 1991

Type Munitions	Number Expended	Individual Weight_Lbs.	Tonnage
CBU-52 Bomb	64	766	49,024
CBU-58 Bomb	102	800	81,600
CBU-87 Bomb	332	1,000	332,000
Mk-82 Bomb	1,570	500	785,000
Mk-84 Bomb	1,538	2,000	3,076,000
AGM-65 Misl	30	478	14,340
AIM-9 Misl	<u>3</u>	<u>191</u>	<u>573</u>
Totals:	3,639		4,338,537
20mm Ammo	10,763 rounds		

## Appendix J

SOUTH CAROLINA AIR NATIONAL GUARD  
169th Consolidated Aircraft Maintenance Squadron (CAM)  
Al Kharj Air Force Base, Saudi Arabia

Organizational Maintenance Branch  
Summary of Aircraft Phase Inspections

	Aircraft Tail No.	Dates	
		Received	Released
1.	299	21 Jan 91	23 Jan 91
2.	293	23 Jan 91	25 Jan 91
3.	308	25 Jan 91	27 Jan 91
4.	292	27 Jan 91	29 Jan 91
5.	320	28 Jan 91	30 Jan 91
6.	291	30 Jan 91	31 Jan 91
7.	319	31 Jan 91	1 Feb 91
8.	304	2 Feb 91	3 Feb 91
9.	288	4 Feb 91	5 Feb 91
10.	322	5 Feb 91	6 Feb 91
11.	302	7 Feb 91	8 Feb 91
12.	297	15 Feb 91	16 Feb 91
13.	306	17 Feb 91	18 Feb 91
14.	325	19 Feb 91	20 Feb 91
15.	295	22 Feb 91	23 Feb 91
16.	290	26 Feb 91	27 Feb 91
17.	317	1 Mar 91	1 Mar 91
18.	321	3 Mar 91	4 Mar 91



## Appendix K

SOUTH CAROLINA AIR NATIONAL GUARD  
169th Consolidated Aircraft Maintenance Squadron (CAM)  
Al Kharj Air Force Base, Saudi Arabia

### Organizational Chart Operation Desert Storm Deployment

LTC Edwin W. Fisher  
Deputy Commander for Maintenance

Major Charles E. Savage  
Commander

CMSgt Jerry C. Couch  
First Sergeant

#### Administration Branch

Major John V. Harsey, OIC  
SMSgt Samuel H. Ezzell, NCOIC

#### Munitions Branch

Captain David S. Cregger, OIC  
CMSgt Thomas A. Marshall, NCOIC

#### Organizational Maintenance

Major Russell A. Rushe, OIC  
CMSgt John T. Bowie, NCOIC

#### Field Maintenance

1Lt Leroy Williams, OIC  
CMSgt Leo A. Chapmon, NCOIC

#### Avionics Branch

CMSgt Joseph F. Kopack, NCOIC

## Appendix L

### SOUTH CAROLINA AIR NATIONAL GUARD 157TH Tactical Fighter Squadron Al Kharj Air Force Base, Saudi Arabia

#### List of Pilots Assigned to Operation Desert Storm

Colonel Jerry H. Risher  
4th\_TFW/ADO

LTC John W. Marshall  
Squadron\_C/C

LTC Charles W. Plunkett  
Squadron\_Operations\_Officer

LTC Shelby M. Townsend  
USAF\_Advisor

#### A\_Flight

LTC Richard S. Cain  
Major Richard M. Ball  
Major Barry K. Coln  
Capt John A. Richardson  
Capt Thorne S. Ambrose  
Capt John A. Sizemore  
Capt John J. Johnson  
1Lt John B. Edwards

#### B\_Flight

LTC Richard W. Noble  
Major Timothy R. Rush  
Major Kenneth M. Jefferson  
Major Ricky A. Mantei  
Capt Thomas B. Spratt  
Capt Charles T. Young  
Capt Andrej Kokal  
Capt George C. Ronan

#### C\_Flight

LTC George B. Patrick  
Major Richard M. Nauman  
Capt Jeffrey C. Gurney  
Capt David P. Seawell  
Capt Joseph G. Weston  
Capt Robert D. Buddin  
Capt Russell Meyer  
1Lt James S. Nottoli

#### D\_Flight

LTC George R. Jernigan  
Major Richard A. Finke  
Major Waymond C. Nutt  
Major John N. Bellinger  
Capt Kenneth R. March  
Capt Charles F. Mooneyhan  
Capt Deane D. Pennington  
Capt Anthony W. Phillips

#### Operations\_Group

Colonel Steve Plummer  
LTC Robert F. Gray  
LTC Joe A. Camp  
LTC Phillip P. Leventis  
Major John H. Smith  
Capt Stanley V. Hood  
Capt Clifford E. Hendrix



## Appendix M

### Family Ties

CENTRAL SAUDI ARABIA - What do 64 people of the South Carolina Air National Guard (SCANG) all have in common? Family ties to the 169th Consolidated Aircraft Maintenance Squadron (CAMS) is the answer. Currently, there are 14 fathers and sons, 16 brothers, and six husband and wives serving with CAMS in Saudi Arabia. There are seven sets of fathers and sons and one set of brothers, with one member in CAMS while the other member serves with another SCANG squadron on the same base here in central Saudi Arabia. Family connections also include 12 fathers and sons and five brothers who have one family member deployed with CAMS while the other member remained at McEntire ANGB, Eastover, South Carolina. There is even a brother-in-law but we will talk about him later.

As with all families, there is diversity among the relatives serving with the 169th. For example, there are two sets of identical twins. There is one person who will be old enough to retire soon and the youngest person who is still a teenager. There are the Tanners, who have the most family members serving with the CAMS in Saudi Arabia. Lastly, there is the member who joined the Guard in 1949. That's right history buffs, we're talking pre-Korean War here. This same person has served in all of SCANG's call ups during its 44 plus year history.

### Fathers and Sons

For Master Sergeant (MSgt) Robert L. Hux, Operation Desert Storm will be his last hurrah. The oldest member of CAMS serving in Saudi Arabia, MSgt. Hux will turn 60 years of age on July 31st, making him eligible for retirement. He and his son, MSgt. R. Lee Hux, Jr. have both served as full time Guard technicians for over a decade. A 12 year veteran of the North Carolina Army Guard, Robert Hux has 16 years with SCANG. In Saudi Arabia he worked as a production controller, the person who schedules maintenance on aircraft while Lee Hux was in charge of the squadron's Egress Shop.

Working in advertising sales promotion in civilian life, MSgt. Robert Hux's joined SCANG with the intention of making the Guard a career. Hux said the friends and associations plus the benefits, persuaded him to stay until retirement. His father served in World War II, eventually retiring from the North Carolina Army Guard. Hux said, he has always liked the military.

Over the years there has been a definite change in technology and the aircraft have gotten better, Robert Hux said. When he came into the Air Guard, the unit was flying A-7 aircraft and then changed over to the F-16. Now that retirement is approaching, Hux said travel, a part-time job, and a "honey dew jar" full of chores awaiting his attention will take up his time.

Active duty deployments are getting to be old hat for MSgt. Archie S. Thorpe, Jr. Saudi Arabia is his third in almost 42 years. Joining the Guard at age 17 in July, 1949, MSgt. Thorpe experienced his first call to active duty in October, 1950 when the unit was activated for the Korean War. Thorpe went back on active duty in November, 1961 when SCANG was sent to Spain during the Berlin Wall crisis. So it came as no surprise when in November, 1990 the 169th was put on notice that it should be ready for a call to active duty. "I always start to worry when autumn rolls around," MSgt. Thorpe said.



## Appendix M continued

Working as a F-16 Crew Chief, Thorpe served in Saudi Arabia with his son, Staff Sergeant (SSgt) Kevin F. Thorpe. SSgt. Thorpe works in the squadron's munitions section. At one time during the 1980's, Thorpe said that he and all three of his sons served in the South Carolina Air Guard. Two of the sons have since left military service.

Still a full time high school student when he entered the Guard, MSgt. Thorpe eventually got his diploma while on active duty. That was during the two years he spent with the Guard at Lawson Field, Columbus, Ga., during the Korean War. This deployment also provided him with one of his most embarrassing moments.

Thorpe said that before he left for Lawson Field, his mother packed his clothes including his pajamas. As MSgt. Thorpe tells it, "Those were the days when we slept in old World War II, two story, open bay barracks. The first night there I put on those pajamas and got laughed right out of the barracks."

Since those early days in the Guard, SCANG was formed in December, 1946, MSgt. Thorpe has seen the unit go from flying P-51 single engine propeller driven aircraft to flying F-16 single jet engine fighters. It was at Lawson Field that SCANG made the transition from propeller to jet engine aircraft when the unit received the P-80 jet fighter.

In 1960 SCANG was the first Air Guard unit to receive the F-104 Starfighter, an aircraft 20 years ahead of its time, MSgt. Thorpe said. It was the F-104 which SCANG took to Spain during the 1961 Berlin Wall crisis. On that call up, the squadron flew interceptor alerts for the Strategic Air Command Base at Moron, Spain.

Since air refueling was not the refined function that it is today, MSgt. Thorpe said that the F-104's had to be disassembled, loaded onto turbo prop C-124 cargo aircraft and flown to Spain. Flying from South Carolina to Gander, New Foundland, to the Azores and then to Spain, SCANG managed to be ready for duty on December 1, 1961. This was 30 days after being activated on November 1, 1961.

As 1992 approaches, an era in the South Carolina Air Guard's history will end. For it is in February that MSgt. Thorpe will reach the mandatory retirement age of 60. With his retirement will go the last SCANG member to have served in the Korean War call up. MSgt. Thorpe served with the Guard from 1949 until 1966 and then reentered military service in 1976. When MSgt. Thorpe retires with 33 years service, he will be the last SCANG member to have worked on the squadron's propeller driven fighter aircraft.

For the youngest of the sons stationed in Saudi Arabia, the war was not as bad as he imagined. Senior Airman (SRA) Martin D. C. Gladden II is a 19 year old F-16 assistant crew chief who did not think hot meals, hot showers or heated/air conditioned tents would be available during a war. Also, being stationed with his father, TSgt. Martin D. C. Gladden, "helped a whole lot." There was always someone to talk to when times got rough, Gladden said.

A graphic engineering technology student at Midlands Technical College, SRA Gladden was influenced to join the military by his father. A F-16 Crew Chief, TSgt. Gladden spent four years on active duty before coming into the Air Guard. However, the Guard was, "always something I wanted to do," SRA Gladden said. He said the experiences, the educational benefits and the friendly, cooperative people are what he likes best about his time in the service.



Although SRA Gladden is the second youngest person serving with the 169th in Saudi Arabia, he still received his share of the teasing from his fellow servicemen. In April SRA Gladden will turn 20 and he says nothing special is planned. Right now he is just happy to be going home.

### Brothers

A chance to work around airplanes and the educational benefits, were two reasons that persuaded Airman First Class (A1C) David J. Locklear and his twin brother A1C Michael J. Locklear to join the Guard. A part-time night student at Midlands Technical College in Columbia, S. C., David Locklear said he enjoyed the training and the travel opportunities afforded him during his three years in the Guard.

Asked about his trip to Saudi Arabia, A1C Locklear said he realized this was the consequences of serving in the military. Locklear's father is an 18 year veteran of the army currently stationed at Fort Jackson, South Carolina. He said his family has lived in North Carolina, Virginia, Georgia and Hawaii, as well as South Carolina.

A full time shipping and receiving agent with the Fisher Service Company in Columbia, S. C., A1C David Locklear looks forward to returning home. He plans to be married in August to a woman he has dated for the past five years. This is not the first time the couple has been separated, Locklear said. His future bride has also had to wait for him to return from Air Force basic training and tech school.

For CAMS' other set of twins, military life began with a three year stint in the army from 1959 until 1962. Technical Sergeants (TSgt.) James and John Nicholson both joined the army under the old "buddy plan" and served together at a missile defense site near Pittsburgh, Pa. The Aiken, S. C. natives both joined the Air Guard in 1972 for a year, returned in 1982 and have remained.

With one exception, the two munitions technicians have served together in the same jobs throughout their military careers. That one exception was a two week summer camp. Both men have Master Degrees in Education from the University of South Carolina and both work as counselors. James worked for the State Technical College system for 15 years before assuming a new position last year with the Westinghouse Corporation as a training specialist. John works as a guidance counselor for the State Department of Corrections.

Both men said the Guard offers a person diversity from one's regular job. It is a profitable way to spend a weekend and both men expressed amazement at the number of college educated, professional working people found in the SCANG. They said it speaks well of the Air Guard and South Carolina in particular.

For the Tanner family, serving in the Guard is almost a tradition. The family has three brothers and one father and son with the 169th CAM Squadron. Two of the brothers, MSgt. Julian C. Tanner and TSgt. Steven A. L. Tanner work as F-16 crew chiefs while Julian's son, SSgt. Mark W. Tanner works as an assistant crew chief. While these three were stationed in Saudi Arabia another brother, TSgt. Wilbur D. Tanner is with the squadron at McEntire ANGB.

## Appendix M continued

MSgt. Tanner began his tenure with SCANG in September 1965 when two of his cousins talked him into joining. The Winnsboro, S. C. native entered the Guard when it was flying F-102's. He has worked on the flight line as the squadron changed from flying the F-102's to the A-7's and then the F-16 fighter aircraft. It was the traditional work values and the travel that has kept MSgt. Tanner in the Guard after almost 26 years. He said the work is interesting and the people at McEntire ANGB, "go a little bit more to accomplish something."

The three brothers and one son are not the only members of the Tanners to serve in the military. MSgt. Tanner said there are eight brothers and one sister in the family. All of the brothers have served as enlisted members in the Guard, the Air Force, the Army and the Navy. MSgt. Tanner's older brother, Floyd retired from the Air Force after 25 years of service. A nephew of MSgt. Tanner has 16 years of active duty with the Navy.

Oh yes, remember the brother-in-law? Well, he is TSgt. Robert E. Age who deployed with the CAMS' munitions section to Saudi Arabia. TSgt. Age is married to the sister of MSgt. Tanner's wife.



**SOUTH CAROLINA AIR NATIONAL GUARD**  
**169th Consolidated Aircraft Maintenance Squadron (CAM)**  
**Al Kharj Air Force Base, Saudi Arabia**

**Names of Brothers Serving with CAMS in Saudi Arabia**

<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>	<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>
Bryant, Ronald S.	TSgt	Avionics	Nicholson, James	TSgt	Munitions
Thomas L.	TSgt	Avionics	John	TSgt	Munitions
Campbell, Johnny M.	TSgt	Munitions	Shepherd, Lee D., Jr.	SSgt	Flt. Line
William L.	TSgt	Munitions	Stephen P.	SSgt	Munitions
Couch, Charles E.	MSgt	Analysis	Tanner, Julian C.	MSgt	Crew Chief
Jerry C.	CMSgt	First Sgt.	Steven A. L.	TSgt	Crew Chief
Locklear, David J.	AlC	Egress	Watterson, James R.	SSgt	Asst. C/C
Michael J.	AlC	Fuel	William F.	SRA	Asst. C/C

**Names of Fathers and Sons Serving with CAMS in Saudi Arabia**

<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>	<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>
Bladden, Martin D. C.	TSgt	Crew Chief	Tanner, Julian C.	MSgt	Crew Chief
Martin D. C.	SRA	Asst. C/C	Mark W.	SSgt	Asst. C/C
Hudson, Archie W.	SSgt	Asst. C/C	Thorpe, Archie S.	MSgt	Crew Chief
Robert E.	SSgt	Munitions	Kevin F.	SSgt	Munitions
Hux, Robert L.	MSgt	Maint. Con.	Williams, Mac L.	TSgt	Maint. Con.
R. Lee, Jr.	MSgt	Egress	Timothy D.	SSgt	Munitions
Murphy, James R.	TSgt	Maint. Sched.			
James R., Jr.	TSgt	Maint. Sched.			

**Names of Husbands and Wives Serving with CAMS in Saudi Arabia**

<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>	<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>
Daytor, William T.	SSgt	Fuels	Medina, Alfredo A.	SSgt	Jet Engine
Sarah E.	SRA	Admn.	Debbie	SSgt	RMS
Dance, John	SSgt	RMS			
Angela M.	Sgt	Admn.			

**SOUTH CAROLINA AIR NATIONAL GUARD**  
**169th Consolidated Aircraft Maintenance Squadron (CAM)**  
**Al Kharj Air Force Base, Saudi Arabia**

**Names of Brothers Serving in Saudi Arabia with CAMS and Another Squadron**

<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>
Williams, Leroy	1Lt	Fld. Maint.
Joseph	Capt	240th CC

**Names of Brothers Serving in CAMS in Saudi Arabia and at McEntire ANGB**

<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>
Boatwright, Frank B. III	Capt	Admn.
Glen H.	SSgt	Flt. Line
Chivers, Richard J.	SRA	Flt. Line
William M.	Sgt	Flt. Line
Tanner, Julian C.	MSgt	Flt. Line
Steven A. L.	TSgt	Flt. Line
Wilbur D.	TSgt	NDI

**Names of Fathers and Sons Serving in Saudi Arabia  
with CAMS and Another Squadron**

<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>
Deshong, Frederick S.	MSgt	Flt. Line
Michael	SSgt	240th CC
Hass, Lee L.	SSgt	Flt. Line
Keith	Sgt	240th CC
Pardue, Arthur J.	MSgt	Avionics
Bryan	A1C	157th TFS

**Names of Fathers and Sons with CAMS in Saudi Arabia and at McEntire ANGB**

<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>	<u>NAME</u>	<u>RANK</u>	<u>BRANCH</u>
Brooks, Mason R.	LTC	SCANG Hqs.	Luke, Jimmie W.	MSgt	CEMS
Mason R., Jr.	SSgt	Flt. Line	Robert G.	Sgt	Muns
Cobb, William	CMSgt	MSS	Shealy, Claude A.		
Lanny W.	TSgt	Flt. Line	Claude A., Jr.	SSgt	Flt. Ln.
Foster, Dugan	LTC	DCS TFG	Shealy, Melton P. III	SMSgt	AGE
Mark H.	Sgt	NDI	Melton P. IV	A1C	Engine



## Appendix N

SOUTH CAROLINA AIR NATIONAL GUARD  
157th Tactical Fighter Squadron  
Al Kharj Air Force Base, Saudi Arabia

## NUMBER OF COMBAT MISSIONS FLOWN

<u>Grade</u>	<u>Name</u>	<u>No. of Missions</u>
Captain	Ambrose, Thorne S.	31
Captain	Ball, Richard M.	34
Major	Bellinger, John N.	52
Captain	Buddin, Robert D., Jr.	34
LTC	Cain, Richard S.	53
LTC	Camp, Joe A., Jr.	28
Major	Coln, Barry K.	37
1Lt	Edwards, John B.	50
Captain	Finke, Richard A.	50
LTC	Gray, Robert F.	21
Captain	Gurney, Jeffrey C.	50
Captain	Hendrix, Clifford E.	31
Captain	Hood, Stanley V., Jr.	21
Captain	Jefferson, Kenneth M.	51
Major	Jernigan, George R.	50
Captain	Johnson, John J.	50
Captain	Kokal, Andrej	47
LTC	Leventis, Phil P.	20
Captain	Mantei, Ricky A.	36
Captain	March, Kenneth R.	50
LTC	Marshall, John W., Jr.	42
Captain	Meyer, Russell W.	50
Captain	Mooneyhan, Charles F.	37
Major	Naumann, Richard M.	36
LTC	Noble, Richard W.	51
2Lt	Nottoli, James S.	50
Major	Nutt, Wayman C., Jr.	46
LTC	Patrick, George B. III	50
Captain	Pennington, Deane D.	50
Captain	Phillips, Anthony W.	50
Colonel	Plummer, Stephen B.	12
LTC	Plunkett, Charles W.	44
Captain	Richardson, John A.	50
LTC	Risher, Jerry H.	23
Captain	Ronan, George C.	50
Major	Rush, Timothy R.	50
Captain	Seawell, David P.	36
Captain	Sizemore, John A.	36
Captain	Smith, John H.	20
Captain	Spratt, Thomas B. II	51
LTC	Townsend, Shelby M.	34
Captain	Weston, Joseph G.	50
Captain	Young, Charles T.	50

SOUTH CAROLINA STATE LIBRARY



0 01 01 0151295 1